



Chris Gare
GARE... Made a surprise exit.

Top jobs switch at Microsoft

by George Black
TOP microsoftware supplier Microsoft is shaking out its European operation, as it lines up to compete with fellow-American Digital Research.

The MS-DOS operating system developer has replaced one of its key men on this side of the Atlantic, Chris Gare, with an ex-Commodore man, David Fraser. Fraser becomes general manager, UK, and Gare's post, director of European marketing, vanishes. Fraser suggested Gare could be given a subsidiary role to international director Scott Oki, but in a letter of resignation Gare has left the company after being ousted from the hot seat, only eight months after joining.

Fraser, who was Commodore's UK sales manager until Microsoft headhunted him, took up his appointment as general manager for Britain and Scandinavia at the

firm's Berkhamstead base last week, after Gare's surprise exit.

The move is part of a reorganisation started by Jim Towne, ex-Tektronix vice-president brought in as president and chief operating officer last autumn.

Microsoft Europe is now split into British, French and German companies with distributionships for other European companies. Fraser's new opposite numbers, Bernard Bergues in Paris and Joachim Kempin in Munich, are said to be recruiting heavily. This mirrors developments in the rival 16-bit camp of Digital Research, the MP/M-86 designer, which is also opening French and German branches and following Microsoft into Japan.

Microsoft had trouble last spring appointing a top European salesman. An attempt to attract a senior Intel executive came to nothing. David Lowe, taken on

from ACT Microsoft, quickly left for Intelligence (UK). Then in June the firm appointed Gare, a Motorola product manager.

Microsoft products had done well in the UK, largely due to Texan Bob O'Rear, international accounts manager, who had been on the team from early days. But in Continental Europe they fared less well. Fraser's task is to strengthen Microsoft's attack on the European market.

Meanwhile in the other 16-bit camp Digital Research is undergoing a mirror-image transformation. Its CPM-86 operating system has found its way on to a considerable number of micros, including IBM, DEC, Data General and ICL. A European HQ opened in Newbury last December.

European director Paul Bailey said smaller branches would open in Munich in April and Paris in July.

Davy digs for information that the DoI doesn't know

by George Black
A PRIVATE computing firm is having to carry out its own survey on the engineering industry's use of computers because the Department of Industry cannot provide the information it wants.

The project, undertaken by Sheffield engineering consulting specialist Davy Computing, is intended to assess which way the market is going and to help Davy size up its competitors.

A DoI spokesman admitted that although it would hold some information on the subject it would not be in collated form. "We don't do any detailed surveys of our own because we don't have the resources," explained the spokesman. "In any case we could not provide such details on request because the information would have been given to us in confidence."

More than 40,000 engineers in Britain have received Davy's questionnaire on which companies they use and which software and hardware they are using. The replies are being fed into Davy's Univas 1100 mainframe batches. Every British engineering company with more than 20 employees has been approached. The answers are coming in from both companies and individuals.

A Davy spokesman said it was still too early to generalise on the results, but some surprising applications were already coming to light. "In some cases people seem to use very simple gear for very sophisticated purposes," he said.

A summary of the results is expected to be published by the end of May, from which it is hoped to be able to identify trends.



JOHN KAVANAGH... Stepping aside.

BTG gets ready for big change

by John Kavanagh
Freddie Wood has cleared the way for sweeping changes at the wholly-funded British Technology Group by retiring as chairman nine months early.

The new role for the group is to be announced in the next few weeks. It will bring a shift away from the group's National Enterprise Board activities as a source of industrial lame ducks and put the emphasis on technology transfer: the commercial exploitation of research and development.

This latter job previously fell to the National Research Development Corporation, which was merged with the NEB in 1981. The merger saw the birth of the British Technology Group. Sir Freddie had been the corporation's chairman.

Another role for the group is expected to be the promotion of UK technology overseas. This has been tried already through the National Enterprise Board's ill-fated software marketing subsidiary.

Industry leaders go to market on Alvey



CLUFF... Pessimistic.



THOMAS... Bridge building.



FAIRBAIRN... Political faith.



JENKIN... Out on a limb?

by George Black
TOP figures in the computer world have been meeting senior government officials to argue that support is needed to create a network for the distribution of technology. That, and the need to concentrate on "added value", is as vital as the background research and development on a fifth generation project, they say.

The push by industry leaders for the government to give financial support to the marketing of products, as opposed to just R&D, comes as a decision on the Alvey Committee's proposals nears.

But there is widespread scepticism whether industry Secretary Patrick Jenkin and Information Technology Minister Kenneth Baker will be able to persuade the Prime Minister to go far enough towards intervention in the market to make Alvey a success.

Alvey's proposals for a £350 million five-year programme for advanced information technology, funded roughly 60% by the government with the balance from industry, has passed through Industry, Education, and Defence ministries to the Treasury.

A final version is expected on Prime Minister Thatcher's desk this week unless the Treasury balks, or the Cabinet Office bats the report back to Jenkin.

It will then become apparent how much success Jenkin and Baker have had in convincing Thatcher of the national importance of government action to direct the marketplace.

Some commentators are calling it a test of political will, with Jenkin and Baker out on a limb from the party line.

Opinions were divided on whether the market would be handled in next week's Budget. Chief among the sceptics were

the National Computing Centre's head, David Fairbairn, and Ted Cluff of the Institute of Data Processing Management.

Fairbairn said it still seemed to be an article of political faith with the government not to intervene but to ellog to the laissez-faire concept.

"The public sector has to be induced to buy the new products, not to be tied down by short-term cost-justification," he said.

He pinpointed the British weakness as being the rate of take-up of new products. "Therefore we should give even more emphasis to market research than do our competitors," he said.

Cluff saw a danger that the whole project could turn out to be too theoretical, and added that Alvey had not been allowed by its terms of reference to address the real problem.

And Peter Thomas of Prael, "The IT industry can't be con-

sidered in isolation. Without a strong manufacturing industry to buy its products, the Alvey project will be money wasted. Despite Baker's efforts I still don't think the message has got across.

"I'm pretty pessimistic. What we want is millions of users, not to concentrate on research by a few university scientists."

This was echoed by Ferranti's Wilf Robinson, director-general of the European Information Technology Organisation, a grouping of 15 UK high technology companies, who said, "We must ensure that the market is primed and not forget that the final objective is to create exports and counter imports. All we are asking for is the same treatment from government as if we were American or Japanese companies."

And Peter Thomas of Prael, "The IT industry can't be con-

Magnuson files for court protection

MAGNUSON Computer Systems, the maker of IBM 4300 lookalike computers, has filed for court protection from its creditors under Chapter Eleven of the US bankruptcy code. Company president Charles Strauch said Magnuson had been very badly hit by IBM prices in late 1982.

In 1982 Magnuson made a loss of \$21.6 million on sales of only \$18.4 million. But the fourth quarter provided a profit of \$1.4m.

Eagle flies again

THE 150 computer staff at insurance company Eagle Star's computer headquarters in Cheltenham have suspended their work to rule, which is in sympathy with a 12½% pay claim by 5,000 clerical staff, for the duration of negotiations with the government conciliation service ACAS.

BT new service

BRITISH Telecom has set up a new division called Telecom Tan to run computer-based telephone answering services from a centre in Bristol.

The call management system displays information to the operator on the company or person whose calls are being answered.

ICL backs MSc

ICL is collaborating with the Science and Engineering Research Council and Kingston Polytechnic to set up a new MSc course in Information Systems Design, in the School of Electrical and Electronics Engineering at Kingston Polytechnic.

Datapoint launch

LOCAL network specialist Datapoint has released a Z80-based eight-bit micro to fill out the low end of its range.

Bureaux battle on against the micro

by John Kavanagh
COMPUTER bureaux have been "savaged" by users' moves to in-house microcomputers - and other services firms could be at risk if sales fall further in the recession, because short-term debts far outweigh assets. But as the services industry walks this survival tightrope it is showing "remarkable resilience" to the recession.

These are the conclusions of a study of 60 companies results between 1978 and the end of 1981 by the UK research firm ICG Business Ratios.

The study report says that despite the dangers the services industry has "tremendous profit potential".

Three of the 60 companies were making losses in 1978. By the end of 1981 the number had grown to 10 - six of them bureaux. "Companies heavily committed to processing services will definitely

LINE NOISE

THE grimace seems to have struck at IBM's new operating regime MVS/XA. Scheduled for first quarter 1983 and widely tipped for January, it now seems that it could be mid-March before MVS/XA is widely available. Just why this should be cannot be gauged - certainly not through lack of performance though. Early reports from the myriad test sites around the world indicate a high level of user satisfaction.

WATCH out for a number of small but successful software houses, which are being stretched to provide a worldwide service to a booming market via a relatively tiny payroll, deciding to raise the necessary cash by going public. We have reason to believe that high up on this list could be the CIS Cobol and Level II Cobol people Micro Focus.

THE saga of Commodore's UK production plant continues. Negotiations between Commodore and the Department of Industry over the grants available to Commodore drag on, and it now looks as if it will be another fortnight at least before anything is settled. Commodore wants to start assembling units here by July, and has fixed on one of two Enterprise Zones for the site. Rix-steel town Corby is currently touted as the favoured location.

KEEP your eye out for top American businessman's magazine Fortune when it hits the stands on March 7. For it reveals that in August, 1981, IBM signed an agreement with the FBI to train and provide cover for two agents and to train others. The agreement was signed only a month before Hitachi's leading US consultant, Maxwell Paley, accepted a substantial payment from IBM for information which led to Hitachi going to court, and pleading guilty, for stealing trade secrets. This tale is bound to cause some stir as Paley was paid over \$2 million by Hitachi over the years, it is alleged.

Computerplan MD to quit

by John Kavanagh
A MAJOR shake-up is in the offing at the top of troubled Data General software house Computerplan - and owner and managing director George Brown is on the way out.

Computerplan hit problems last autumn and formed a subsidiary, Computerplan Software Services, to take over its software packages and 10 staff. Software development costs put Computerplan in trouble and it went under this month when the Customs

and Excise refused to wait for VAT payments. Other creditors, including the Inland Revenue and Data General, were ready to wait for the subsidiary to get on its feet and seek City investment in the summer to pay off its debts.

Six of the staff, led by finance director Thomas Donahue, are now preparing to buy Computerplan Software Services and the products from the receiver. But Brown is not included in Donahue's plans.

"We wouldn't need him as a

full-time managing director," said Donahue. "I'm now running the company but we're a small operation so we all do a bit of everything. George has great marketing flair - but even so we don't need him full-time. I see us employing him as a consultant part-time."

Meanwhile Brown is talking to fast-growing services group Systemsolve about future ventures. These could involve the transfer of Computerplan packages to 16-bit microcomputers running the Unix operating system.

ICL sticks with 8-bit for micros

by Robert Parry
IT IS still an eight-bit micro world at ICL - for this year anyway. The new clutch of personal computers hatched by ICL last week remains centred around the Intel 8085 microprocessor, though a 16-bit option is promised for the summer.

"We wrestled with the problem of whether to go straight to a 16-bit machine," said office systems business manager Roger Hill, "but the dealers said 'Why worry?' The application software is still on eight-bit micro." So for the next 12 months ICL will be eight-bit application based.

"The market does not buy high technology," he added. "It buys usage and applications."

Market pressures will determine the operating systems to be offered on the 8085 and 8086 16-bit option too. CP/M-86 is presently in favour, but Hill does not rule out MS-DOS. "It depends what comes on in the European market."

ICL is placing most emphasis on the new models' improved performance over the early Personal Computer range, which were built on the Intel 8080 microprocessor.



HILL... Staying with 8-bit.

business software suite sold by ICL label as ICL Hi-Line.

Like the Personal Computer hardware, Hi-Line is sold through the ICL Trader Points, along with MicroPro word processing and spreadsheet programs, Digital Research CPM and MP/M operating systems and Microsoft languages. All these are supported by ICL.

The new models are all variants on the basic eight-bit theme, but with different memory and mass storage capacities. Multi-user operation, with up to four screens, is available on all of them, with sufficient RAM.

The machines arise from ICL's collaboration with RAI, although the new models are packaged differently from the RAI Black Box range, which they grew out of.

CENTRONICS Diablo olivetti Hazeltine

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ICL seeks a share in CAD centre

by Andrew Thomas
ICL confirmed this week that it wants a stake in the Cambridge CAD Centre, scheduled for privatisation by the end of this month. But it may face stiff competition from Prime.

ICL says it intends to become a shareholder in the Centre as part of a consortium made up of engineering companies and venture capitalists. At the same time there is evidence that Prime may be leading a rival consortium aimed at keeping out ICL.

The April deadline set by the government for the sale could be missed. Hambros Bank, which is handling negotiations for the DoI, has not yet sent copies of the terms of the sale to the interested parties.

Jeremy Harbord of Hambros said: "There are quite a few interested parties, and we are looking at a number of companies at the moment. We would hope to get all of them informed (of the terms) soon, but whether that will be this week, I couldn't say. The end of March date isn't a deadline; it's a target."

ICL put its cards on the table with the statement that "ICL will be a shareholder, but not a major one, and we want the ICL staff to have continuity of service and past service rights carried over the sale."

All but six of the 150 CAD Centre staff are ICL employees, and although the DoI stated in January that redundancies were unlikely, the possibility of a takeover by Prime, which has reduced the workforce of CAD

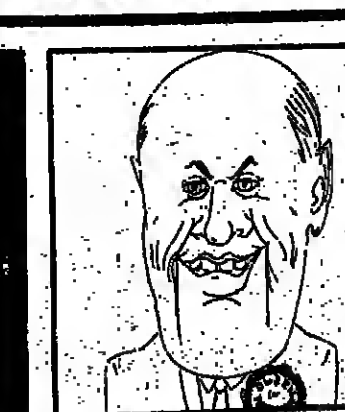
systems house Compeda from 150 to 60 following a takeover last December, must give cause for concern.

CAD Centre financial controller Brian Picton gave credence to the Prime consortium rumours this week. "There are certain people that ICL wouldn't want to join a consortium with," he said. "There may well be more than one consortium trying to buy us."

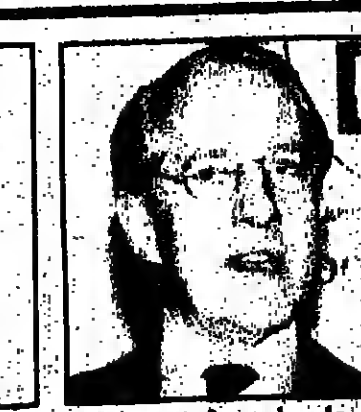
Prime spokesmen refused to comment on the CAD Centre takeover this week.



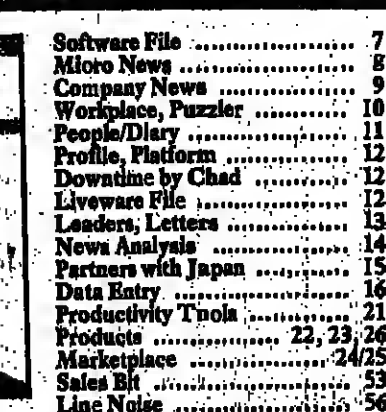
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Olivetti woos US and jilts France

by Jack Gee
OLIVETTI chief Carlo de Benedetti is looking for an American partner, and the French government looks likely to lose its access to the Italian giant's know-how in office automation, as well as its 40% stake in the company.

Olivetti's efforts to loosen its French ties come at a moment when the Italian government is expressing interest in a stake in the Thomson-Brandt merger with Grundig whose outcome is still uncertain.

De Benedetti revealed his interest in an American alliance for Olivetti, as moves began to dissolve Olivetti's partnership with the French State-owned, company, Saint Gobain.

The French government has told Saint Gobain, which diversified into electronics under orders from former President Valéry Giscard d'Estaing, to divest itself of its high technology activities.

Saint Gobain, traditionally a glass maker and obedient to its State shareholder, has therefore sold its 20% stake in computer maker Cii-Honeywell Bull to Machines Bull, the holding company.

Cii-Alcatel, a subsidiary of another State-owned electronics major Compagnie Generale d'Electricite, has been instructed to negotiate for the purchase of Saint Gobain's 35% stake in Olivetti.

But de Benedetti is uneasy about remaining in harness with the French. His relations with Cii-Honeywell Bull's previous chairman, Jean-Pierre Brule, were tense and no headway was made in launching a joint venture into office automation.

Georges Pebreau, Compagnie Generale d'Electricite's managing director, is keen to have Olivetti as an associate, and describes the Italian company as one of the "great possible partners."

De Benedetti has been saying that he is eager to extend Olivetti's access to the French market, but his priority is to establish a viable industrial partnership. The financial relationship must be on a scale in proportion to the industrial effort, he argues - a broad hint that Olivetti should share French State aid to computer makers.

This reflects his view that if Cii-Alcatel steps into Saint Gobain's shoes, its stake in Olivetti must be much less than 40%.

De Benedetti recently gave a hint of his much greater enthusiasm for an American partnership when he told Fortune: "The problem is to find a shareholder who will help us continue to expand."

De Benedetti said he was prepared to leave part of Saint Gobain's stake "in French hands".



BENEDETTI... Priority to US.

Hart aims to fill gap in micro shop services

by Robert Parry
ONE-STOP micro shopping is the carrot dangled by newcomer to the microcomputer market, Hart Computers. British hardware, from Plessey Microsystems, and software including integrated accounting packages from Graffcom, are combined with user training in one, three-pronged package for small to medium businesses.

"A lot of people are making money by selling systems that cannot work," says Hart's managing director, Brian Courtney. "They get away with it for a while, but it's not us - we don't want to be one of them."

Hart's aim is to come somewhere between Tottenham Court Road micro dealers and the large multinational manufacturers in the level of training and after sales support offered, Courtney says.

Training, like the basic business software, is included in the system price. And hardware and software support will come through Hart itself, with each office having a complement of engineers, trainers and software people.

For the moment the only Hart office is in Basing, West London, but Courtney intends to head East in a few months time. "We're looking for somewhere around Liverpool Street Station for our City Office, then will replicate centres throughout the country as fast as practicable," he adds.

He sees no more than eight or 10 centres being set up in the next two years.



COURTNEY... Heading East.

The hardware used is Plessey's System 19, which achieves multi-user operation through giving each user a Z80 processor with 64K of RAM. All processor boards are located in the central systems box, along with hard and floppy disc drives. As well as carrying the Plessey or Hart labels, the kit can be found elsewhere as the Logitek Landmark.

Operating systems used are from the Digital Research CP/M stable, adding a wealth of off-the-shelf software to the packaged accounting, word processing and general business software included in the asking price. Multi-user operation comes through MP/M and CP/M - tweaked by Hart so that it works, says Courtney.

System prices start at £15,000 for a two user, 10 Mbyte Winchester disc package, rising to £42,000 for a 16 user, 35 Mbyte system. Hart has already sold two systems, worth around £33,000 altogether, somewhat earlier than planned. Installation of systems will start in April.

SALES BRIEF

Sperry sells £2m system to drugs firm

PHARMACEUTICAL supplier Macarthy's has signed for a new £2 million Sperry Univac 1100/15 multiprocessor system for its Bedford headquarters. The new machine will replace Macarthy's existing installation of five 9010 mainframes.

And in Germany, Frankfurt University has ordered a £1 million 1100/91 system which will form the basis of a network linking colleges in the Rhein-Main area. The initial network will support around 800 users, a number expected to grow significantly as the network is developed.

Pilot's aid

THE F-16 fighter aircraft is to be equipped with British head up displays in a deal worth £30 million to Marconi Avionics. The General Dynamics plane will feature a wide angle display aiding navigation, navigation and weapon aiming plus a TV picture of a scene ahead for night operations.

Fire control

THE UK's second largest fire brigade, Strathclyde, is to take a £1 million computer-based command and control system from IAL Gemini. The system is based on three Data General Eclipse minicomputers.

BT order

TWO million pounds worth of Newbury Data VDUs and mainframe computers are to be ordered by BT. Some of the terminals will be used for BT's packet radio stream service, but the majority will aid the development of its applications throughout Britain Telecom.

Sweet deal

CAP is aiding the production of 200,000 tonnes of sugar a year in a turnkey deal with British Sugar. A supervisory control system worth £430,000 is to be installed at the BS Hurst St Edmunds automatic warehouse part of a complex which produces 40% of British Sugar's annual production.

Vital modems

MICOM-BORER Micro 4000 modems are to form an integral part of Geac Computer's systems aimed at library applications. The first shipment of 4,800 baud modems is valued at over £200,000, and further orders are expected.

Geest in hospital

THE new £4 million Fitzwilliam Hospital at Peterborough is to use Geest Computer Services to handle its staff payroll system. Geest already handles over 120 payroll, sales ledger and invoicing applications for firms in the Peterborough area, and claims that its service costs less than half the price of manual systems.

On prescription

EACH month, 12.5 million prescriptions are issued, and Reddison Computers has won a £12 million contract to supply hardware and software to calculate payments to 4,000 pharmacies and to provide prescription analysis over 900 GPs within the NHS.

Users slam govt over privacy Bill

by John Kavanagh
THE government is pushing the Data Protection Bill through Parliament to keep in with the UK's EEC neighbours rather than to meet the public's privacy needs - a result the public's greatest fears will not be covered by the Bill.

That is the view of the National Computer Users Forum, which represents 25 of the UK's leading computer users associations and other user groups. The forum has written to Home Office Minister David Waddington to express its "serious concern".

In its letter the group says although the privacy issue has been highlighted by the advent of computing it is a social rather than a technological issue.

The group also criticises proposed exemptions from the privacy rules. "The exemptions appear to remove from legislative cover the more sensitive items which are

likely to be at the heart of public concern," says the letter. "These exemptions may undermine the attempt the Bill makes to meet privacy needs and quell public fears."

"We feel privacy is privacy and the Bill doesn't deal with privacy but with the computer handling of data," said Gordon Cunningham, who represents the local government computing consultancy LAMSAC on the forum. "Privacy is not a computing issue but involves a far deeper social need."

"As far as getting round the Bill is concerned it would be easy to strip names and addresses off a computer file and hold them on a manual index, for example."

Cunningham also backed the view put by Labour's Lord Elwyn-Jones in the Lords that too many exemptions would have power to sign exemption certificates.

"The Bill says any minister or ministerial representative can sign," Cunningham said. "There

are 100 ministers and we reckon this clause means some 300 people could sign away secretive systems."

He added: "We feel the Bill will go through largely as it is because the EEC is coming to the end of its tether waiting for the UK to conform to the EEC convention. The impetus is coming from trading considerations rather than social concern."

Despite its comments the forum says it wants the Bill to get through. "Once the Bill is on the statute book, wars and all, we can start to work on amendments to it," Cunningham said.

The Bill is now being prepared for its third and final reading before the Lords. It will then pass to the Commons. The Home Office said the government hoped to get the Bill before the Commons as soon as possible, perhaps before Easter.



CUNNINGHAM... "The Bill doesn't deal with privacy."

Atlas scheme replaces unsuitable systems

by Robert Parry
A SYSTEM that works - that is the guarantee from Bolton-based Atlas Computer Consultants. It is offering clients a policy backed by Lloyd's underwriters which will ensure that a recommended system that does not come up to scratch will be replaced with a suitable alternative from a new supplier, at no extra cost to the client.

"We recommend a 'best' supplier for a particular client, but things can go wrong," says Atlas managing director Maurice Hamlin. "This way the problem is left for the insurers to deal with."

The scheme has been running for about two months now, and has proved relatively successful in appealing to clients. Of the 12 that have been offered the guarantee scheme - which is not available retrospectively for systems already installed - nine have taken it up, says Hamlin.

The clients pay £2.25 per £1,000 system cost for one year's guarantee on a system Atlas recommends.

Big Brother moves into supermarkets

by Donald Kennett
A NOVEL experiment in the US is using supermarket point-of-sale equipment and one-way cable television to monitor how television advertising affects buying habits, a retail management conference heard last week.

Market researchers are able to find out which of 1,500 volunteers in six cities are tuned to relevant channels when client companies buy advertisements running. The information can be correlated with details of goods the volunteers buy at their local supermarkets.

Information is collected from the supermarkets by bar-code readers at the check-out till which are installed free by the market research company in return for the data collected. Volunteers are identified when they present their machine-readable identity cards to the cashier and they are motivated to do this by the inducement of a monthly prize draw.

The system was described by Gerald Eakin, the founder and vice-president of Chicago-based market research company Information Resources, who was

speaking at the conference on Cable Television and Retailing run by Retail Management Development Programme of Brighton.

Answering questions about the invasion of privacy this type of operation represented, Eakin said that far from resenting it volunteers appeared to be pleased with the opportunity of showing manufacturers what they thought of their products and the advertisements for them.

The equipment installed in volunteers' homes works on conventional one-way tree-and-branch cable television networks of the type currently installed in the UK. It can be individually addressed and controlled from the cable distribution centre so as to show a test advertisement sent out on a "dummy" channel in place of the advertisement being shown on the channel the subscriber was tuned to. And it can be instructed to collect data on which channels have been selected during the course of the day and send it by telephone to the cable centre.

■ Leader Comment - page 13.

Reshuffle at top of IBM UK

by John Kavanagh
IBM has brought its UK manufacturing and development activities closer together by creating a new job of manufacturing and development director. The job has gone to former development director John Fairclough, who has also moved from managing director of IBM United Kingdom Laboratories to chairman of the research subsidiary.

IBM's UK chairman Eddie Noon said John Fairclough's task is to bring about an even closer working relationship between manufacturing and development.

Fairclough is a long-serving IBM man. He joined the Hurley Laboratory in Hampshire in 1958 and after 10 years became assistant managing director of IBM United Kingdom. In 1970 he went to the US and had responsibility for development and manufacturing at IBM



FAIRCLOUGH... Long-serving.

promotions for the people just below him. Another long-serving, Jim Miller, who joined as a trainee in 1952, has moved from director of the Greenock factory in Scotland to manufacturing director, reporting to Fairclough. Alex Wilcox, assistant plant manager at Greenock, has become director there.

And Jack Hockley has moved from laboratory operations manager at Hurley to laboratory director. Meanwhile John Holmes, technical services director and a long-time IBM man, has been made responsible for UK manufacturing. He has become head of information systems and communications products manufacturing at IBM

FACE TO FACE WITH SYSTEK

"The computer system that ended our four year search was supplied by SYSTEK"

F.A. Standen & Sons whose main office is in Ely, Cambridgeshire is one of the largest distributors of agricultural equipment in the UK. It was only two years ago that they installed an inhouse computer system, after four years on a bureau. As suppliers and servicers of agricultural machinery it seemed sensible to further update the areas of stock control, workshop invoicing and accounts which had proved to be time consuming and tedious. The computer that ended the search was supplied by SYSTEK.



Interior, spare parts supermarket.

"The reason the search took so long was because we'd failed to find a company that would write a programme to cater exclusively for our own in house information. Being in the agricultural

business we needed a programme that could identify the four seasons because naturally the demand for parts in different seasons varies considerably" Commented Gordon Bovis, General Manager, Parts Department.

"We've been very fortunate, I think, with SYSTEK because I believe we're one of the very few companies that are actually satisfied with our computer operation," the Managing Director of Standen's Gervase Drake-Brockman commented. "The reason everything's gone so remarkably smoothly is because right from the beginning we were able to deal directly with the top men. I'd say we've gained the full benefits of SYSTEK being a company that listens to the customer."

"SYSTEK designed a programme that was virtually tailor-made. They listened and responded so well that in the end we really felt we'd designed the system ourselves. Added to this the computer was installed



F.A. Standen are distributors for Massey Ferguson.

one week prior to the pre-arranged date and that's something fairly unusual these days," Gordon Bovis explained.

"With overall sales up by 20% per annum five found very little indeed to fault with SYSTEK," Gervase Drake-Brockman summed up. "The way they carried out the job was absolutely first class. What more could you ask?"

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FORTUNE... Showing ability to deliver hardware application package.

Data General wins \$40m office net order

by John Riley
A TOP US stock brokerage firm, E. F. Hutton, has placed a \$40 million order with Data General for an integrated office network in one of the largest office automation deals ever signed.

Ray Fortune, Data General's vice-president for Europe, announced the order last week and said: "This order shows our ability to deliver a hardware application package and illustrates our turnkey responsibility. It is our proud boast to announce that all these systems will be installed within the next 15 months."

Hutton will be installing some 300-400 integrated branch information processing systems based on Data General's Comprehensive Electronic Office. Each system in the office network is

based on a two Mbyte Eclipse MV/4000 32-bit minicomputer with 147 Mbytes of storage, a 15 Mbyte cartridge tape drive and two letter quality printers together with between four and eight workstations.

Each of the systems will interact with a Bunker-Ramo System 7/90 used by Hutton for data, communication and database enquiry purposes as part of an IBM and Data General controlled network.

This order is a boost for Data General's commitment to the office automation market, and is another chapter in the success story of the MV/4000 minicomputer, launched last November.

According to Bill Cadogan, marketing manager for the UK and Ireland, over 100 orders for the MV/4000 have been placed in Europe.

Boys beat politicians

A TEENAGE team from Yeovil, Somerset has beaten Labour and Conservative politicians at running the economy by using a computer model.

The four boys, aged 16 to 19 have won a competition on Running the Economy sponsored jointly by Digital Equipment and the School of Economics and Politics at Kingston Polytechnic.

"We used a simple Keynesian model with just a slight tinge of monetarism," explained the team's leader Michael Jordan. "We checked out the program very thoroughly first to see what could be done with it. We cut taxes and increased government expenditure, but kept the money supply well under control."

Eighteen schools competed against professional economists from London Business School, as

well as politicians. The Conservatives came ninth, and Labour was 20th out of 21 contestants. The Yeovil boys got 4,233 points, while Labour MPs managed only 1,952.



JORDAN... Team leader.

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IT is making it possible for firms to leave the cities.

Small machines mean more space for people

by John Kavanagh

INFORMATION technology is paving the way for companies to leave expensive city centres and giving staff more space to work in. These unheralded benefits of technological progress are highlighted by a report from the College of Estate Management, which contradicts forecasts of falling demand for office space.

"The impact of information technology is on office location, not size," said research fellow Craig Plumb, who prepared the report. "As equipment gets smaller and fewer people are employed companies are not necessarily cutting back on space but providing more space per person. This coincides with an increase in staff expectations."

"There is also a trend away from private office space to more conference space," Plumb said. Information technology and communications were not the main factors to influence firms to move out of cities. "Information technology has enabled people to move back-room functions anywhere but things like rates and rents are the main influences," he said.

The report says it is no longer possible to predict long-term demand for office space. "All that is certain is that change is inevitable."

Demand will not fall over the next five or 10 years, but the increase in demand will start to level off, says the report.

Privacy law delays the fight against cancer

by Jack Gee

PROGRESS in the fight against cancer by French research teams is threatened with a serious setback by the application of the five-year-old law which safeguards citizens' rights against data processing misuse.

Doctors say their efforts to co-ordinate information about patients' medical histories is being thwarted by both the Penal Code and the National Commission for Information Technology and Civil Liberties.

The medical profession claims that legislation designed to protect civil rights prevents the creation of a national database listing all cases of cancer in France.

This database is an essential tool for identifying phenomena which link sufferers according to age, place of residence, medical history and other characteristics. Without it progress in the battle against cancer cannot be made, according to French doctors.

Minister of Health Jack Ralite says the problem is so urgent that he is asking the country's top law-reviving body, the Council of State, to rule whether doctors would be breaking the law if they establish a database register of cancer sufferers.

The Commission ruled that the National Technology and Civil Liberties has already succeeded in getting one official medical database's records scrapped.

The Commission ruled that the Ministry of Health's record of handicapped children risked damaging their prospects at school and for employment. It was destroyed last year.

Explaining the stand adopted by the Commission, its president, Senator Jacques Thyraud, said: "We are not seeking to block scientific work, but to respect the balance between the sacred rights of the individual and the needs of medical research."

Thyraud added: "One difficulty is that the patient in many serious cases is not informed of the diagnosis. This makes it difficult to ask him to agree for his case to be registered in a database."

Article 388 of France's Penal Code which incorporates part of the Hippocratic Oath, provides for sanctions against doctors and members of the medical profession who disclose confidential information obtained from patients.

"The 1978 law on data privacy says that when details about a patient are incorporated in a database, only a doctor can have access."

Professor Robert Lamant of France's National Institute for Health and Medical Research says: "We are up against a major problem. Doctors are worried. They're unable to do their job properly because of the state of the law on data processing."

'IT is about money, not technical excellence'

by Donald Kennett

ETHERNET and IBM's token-passing bus network will be running neck-and-neck in 1986 with 30% each of a \$390 million market, according to networking company 3Com's international marketing manager David Coulson.

Speaking at a seminar on local area networking with the Unix operating system held by Keen Computers, Coulson said that Ethernet had two years to establish itself while IBM developed its system.

Ethernet and local area networks in general so far have been more talked about than actually used. Another speaker at the seminar, Dr Ken Heard of the Joint Network Team for UK universities and research council systems, suggested that Xerox, which developed Ethernet, in many ways misunderstood the standard-making machinery. "They thought they had a specification available that could be

slapped on the table and adopted. But the rest of the world said let's work on it for a couple of years so we're all at an equal disadvantage."

"It's worth remembering that information technology is not about technical excellence, it's about making money."

Heard told delegates not to be mesmerised by the enormous amount of standards work that had gone into the communications layers of the International Standards Organisation's Open Systems Interconnection model.

Although they were necessary, they were insufficient without the data processing layers of the model to do the whole job of enabling distributed applications to share resources.

"Software implementation is slow," he said, "but standards are even slower. The International Standards Organisation works to a 25-year time cycle."

Standards for the Session and Presentation layers could realistically

be available in draft form by the end of this year.

There was now a universal recognition, including by IBM, that standards were necessary for the interconnection of systems from different suppliers — or even different systems from the same supplier.

There was a danger that any small difference was enough to prevent compatibility between systems, he said. It was interesting that semiconductor manufacturers were producing "soft-centred" networking chips, that could be configured to a variety of specifications. But this was bad news, because although they would allow mistakes to be rectified, they would also allow different incompatible implementations.

Although it is a competitor to Keen's supplier Corvus, 3Com was invited to Keen's seminar because of managing director Dr Tim Keen's belief that educating the

market is more important than winning it up at this stage.

Coulson said that last year's \$1 million local area network market was dominated by new Ethernet systems such as Corvus's PABXs. Ethernet's share was growing as its prices fell, he said.

3Com specialises in Ethernet. Having been set up in 1979 as a consultancy, it moved quickly to manufacturing, first of transceivers for interfacing terminals and processors to the network itself, then with controller boards to plug into the stack processors and finally with working software to run in the processors, provided that they were under Unix.

Average prices for Ethernet systems had already fallen to \$3,000 per connection in 1981, less than \$1,000 at the end of 1982 and would fall to \$300 in 1986, Coulson said.

SOFTWARE FILE

PPL pushes forward with assault on micro market

PACKAGE Programs has taken on board micro expert Vince Bennett from System 200 to back its assault on the bottom end of the market. He will be the company's key man in its adaptation of its range of business management programs for small computers.

PPL believes the experience Bennett gained at System 200 — and before that with Datasolve, GSI and Univac — will strengthen the team it has lined up to make the most of the burgeoning micro software field.

Managing director Roy Taylor says PPL is pushing ahead with investigations of the field, independent of the giant American corporation Software International for which PPL is an agent, although Software International is also moving in that direction.

Most of PPL's micro range will be developed in-house, according to Taylor. This marks a shift of emphasis for the firm, which has previously divided its efforts equally between development and



TAYLOR... "We intend to spread ourselves."

agency work.

But the first micro product likely to emerge is the interactive financial planning system IPFS written by Execum of Texas, which is working on a scaled-down system at present.

"The micro version should be available for the IBM PC in the summer and will be almost identical to the mainframe one," said Taylor. "It can be used as a standalone spreadsheet or as part of a hardware network."

Several products developed in-house are expected to be on the market by the end of the year. Taylor is awaiting the report of international marketing chief Stewart O'Malley, who is on an inspection tour of the Gulf, Australasia, North America, Hong-kong and Singapore.

Taylor confirmed: "We intend to spread ourselves abroad with sales and support offices in various parts of the world."

NCC Cobol tests may help exports

A COBOL validation service introduced by the National Computing Centre carries the US government's stamp of approval and could help boost British software exports.

The NCC is to check Cobol compilers along lines laid down by the US Federal Software Testing Centre. And there are plans to launch a similar scheme for Fortran later in the year.

The service is being backed by the Department of Industry to the tune of £60,000 over its first two years, following evaluation by its Focus committee which was set up in April 1981 to consider information technology standards. Last week Junior Industry Minister John Butcher, welcoming the initiative, said it was the first public service for testing software products to a recognised standard in the UK.

The work is to be done by the

NCC's standardisation office, which hopes to assess up to a dozen Cobol products in the first year of its operation. A new Ansi standard Cobol if approved in that time could open the floodgates to a "whole raft of new Cobols", according to the NCC's Tim Wells.

The US government has run Cobol validations for a number of years, but recently has stopped sending representatives abroad to look into software matters. The UK Ministry of Defence has tested Cobol products and there have been unofficial means of having programs investigated, but the NCC's is the first scheme to be negotiated with US authorities and to stand up a part with their own. The FSTC has also recently begun validating Fortrans.

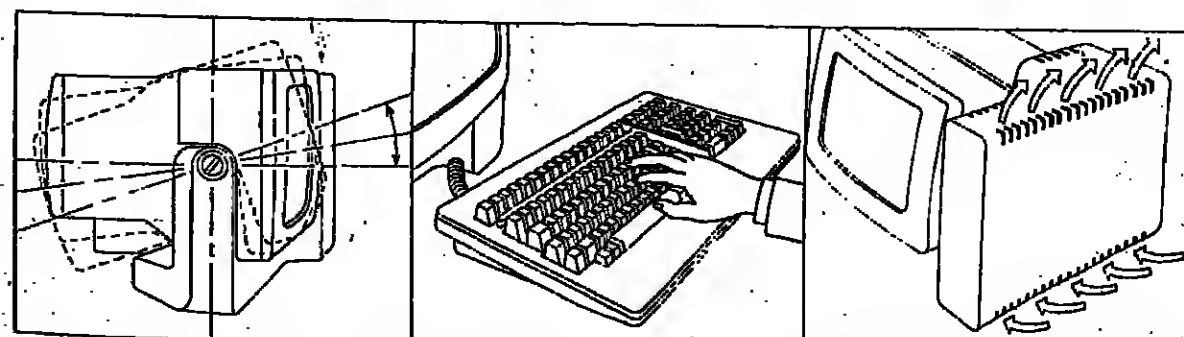
It is hoped to open French and German centres to carry on the same service during 1983, in

France under the auspices of the State electricity board and in Germany run by the "German NCC", the GMD. On the American pattern, compilers with faults or restrictions will be returned to their authors with recommendations for amendment instead of outright rejection.

The NCC project is being supported by the government procurement body the Central Computer and Telecommunications Agency (CCTA) which will adopt its checks for buying software while public sector users need them. Cobol suppliers to the public sector are to be asked whether their software is up to the NCC mark.

"Guinea pigs" for the scheme were compilers put forward by Systime and CTL, which were issued with certificates. The cost of screening is likely to be about £2,000.

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PHILLIPS... Rooms for sale.

Rooms for small hotel managers

A SYSTEM for managing small hotels has been launched in the UK by Carr Consulting, a subsidiary of the nationalised Irish airline Aer Lingus. Called "Rooms" the program was written by an independent Dutch software house Datasolve and is based on the Philips 7700 micro.

Carr, which already markets the Philips-based Datasolve system for larger hotels, thinks that Rooms will open up a new market among hotels of 100 to 300 rooms. The system is claimed to integrate word processing and electronic mail facilities. A typical system will cost £40,000 to £50,000. Eighteen UK hotel managers are said to be now studying it, including Trust House Forte, which is a Datasolve user.

Carr's general manager Colin Phillips, hopes for 10 sales in the first year. He has negotiated the UK rights, as well as world rights by agreement in principle with Datasolve.

He has also signed up Dallas software house Cutler Williams to promote Datasolve in North America. Its 30 North American users have been supported by Cutler Williams since Phillips decided to sell its interest in the American market to Carr last year. London-based Carr has been unable to find a US presales agent then.

Cutler, a financial and commercial software house, will be selling Datasolve under the Motorola label. Motorola makes the chips for Philips hardware and will maintain it in American hotels; Cutler will be supporting the software, while Carr's researches enhance it.

Impell Anvil ready for DG 32-bit minis

AVIL/4000, a successful mechanical engineering software package, has been made available on Data General's 32-bit minis. Anvil was written by Pat Hanratty of Manufacturing and Consulting Services (MCS) and is marketed in the UK by Impell. The CAD/CAM system has already been adopted in the US by Westinghouse on its Data General hardware. It was demonstrated by Impell for the first time in Britain at the CAD North exhibition in Manchester.

Professional WP

DEC's Professional micro now has its first word processing system, according to Tom Barnard, managing director of Ace Microsystems. Ace has developed the Ace-11 system for the micro, as well as for DEC's PDP-11 and Vax minis. DEC says it is working on its own set of tools for the Professional, which includes a word processing system and will be announced shortly. Barnard was the inventor of the National Computing Centre's award-winning Filetab language.

Ada for Concept

US MINI manufacturer Gould SEL has introduced Ada and Pascal compilers to run under its Unix Operating system on the Concept 32 machines. Both Ada and Pascal compilers generate machine code via the 'C' language compiler.

Omicron order

LONDON software house Omicron has won a £35,000 contract to supply the accountancy giant Price Waterhouse. Omicron will put its financial packages on to 150 systems at 50 Price Waterhouse sites. Managing director Vince Wells, formerly of RTZ Computer Services, said his firm was aiming to boost turnover from £452,000 to £1.75 million in 1983.

Mini CIS Cobol

PROGRAMS written in Micro Focus's CIS Cobol can now be run on Ferranti Computer Systems' Argus 3000 range of minis. The Argus CIS Cobol extension runs under the OSCS multi-access operating system. Ferranti says that Argus users can now take advantage of many Cobol packages.

Software File is compiled by George Black.

Rodime first with 3 1/2in Winchester

BRITISH disc maker Rodime has set the pace for the next generation of Winchester. It has launched a 3 1/2-inch drive carrying five or 10 Mbytes, based on the design of its current range of 5 1/4-inch units, and hopes to pull the rest of the Winchester building community along with the standards it lays down through its early announcement.

"It is the first, and the definitive 3 1/2-inch Winchester," says Rodime's marketing director Malcolm Dindson, "and we believe it is going to set all the standards — the dimensions, standard, the disc diameter standard and the interface standard — for a totally new generation of rotating disc memories."

The move towards smaller disc drives has been most noticeable with suppliers, where there is a multiplicity of manufacturers with various dimensions of disc vying for the microfloppy market.

The basic unit is the same width

as these microfloppies, 4in, and half the height of a standard 5 1/4-inch drive. By overpackaging the unit it can be fitted into the space for a half height 5 1/4-inch drive.

Many companies are now moving the half height 5 1/4-inch way, and Rodime has considered this market in detail, says director of engineering Norman White.

"It soon sank in that if we were clever we could produce a sub 5 1/4-inch drive whose dimensions were such that it could also be packaged as a half height 5 1/4-inch Winchester — and so kill two birds with one stone," he says.

The length of the drive was set at the width of a normal 5 1/4-inch drive, allowing two units to be packed side-by-side in the space of a single half height 5 1/4-inch unit.

Once these physical dimensions had been fixed, giving Rodime its best chance of filling the hole in the market — and microcomputer front panels — the rest of the new drive came naturally, adds White.

"The capacities and data transfer rates of the new drive were going to be comparable with existing 5 1/4-inch drives, so the logical interface was the standard ST 506 interface," says White. "That removes one huge integration problem at a stroke."

As for the disc diameter, this was a function of engineering design, and Rodime picked 96mm, with the same diameter central hole as present 5 1/4-inch media, making it relatively easy for media manufacturers to gear up to produce the new disc platters.

Conventional manganese zinc ferrite heads are used on either oxide or thin-film media.

The present Winchester market is heavily weighted towards units up to 10Mbytes, and it looks as if things will stay this way for some time. By bringing down the size of the drives, with associated weight savings and a need for less heavy power supplies, Rodime hopes to open up the market for Winchester



DUDSON... "It is the first and the definitive 3 1/2-inch Winchester."

tens in portable micros.

But even sample drives will not be ready for another two or three months, and Dudson is coy about

pricing, committing himself only to a "very competitive" price compared with equivalent capacity 5 1/4-inch units.

Seeq to put EEPROM on TI single chip micro

SEEQ Technology's electrically erasable programmable read-only memory (EEPROM) technology has found a microcomputer home with Texas Instruments. Seeq has signed a license to produce an EEPROM on the TMS 7000 single-chip microcomputer, to which the SEEQ EEPROM will replace the standard ROM as program memory.

Seeq is calling the part the TMS 7000 adaptive microcomputer, and a functionally and electrically interchangeable with the TMS 7000 from TI.

But by incorporating the EEPROM, the device has the ability to alter its own non-volatile memory, reprogramming the through signals generated by the chip, or can be reprogrammed remotely, down a telephone line.

TI will start building the EEPROM version of its 8-bit microcomputer next year, says the Seeq part responsible for the second source, needed if it is to find general acceptance.

Applications envisaged for the device include machine tools that include adapt to changing circumstances — like self-calibrating instruments or machine tools that allow for wear in the machine parts — and systems that need from remote reprogramming.

Point of sale terminals, meters and household appliances fit into this category.

Because the EEPROM memory and the microcomputer will be integrated on a single chip, the device should come in at a price that puts it in range of consumer applications.

The self-adjusting capability already possible, but only using separate processor and memory chips.

Seeq orders for the Digico version have been taken.

COMPANY NEWS Ex-ICL man bounces back with estate package

by John Kavanagh

AN ICL man who retired early to join an estate agency has come back into the computing business in style with an estate agency package. For Derek Caston has sold the system to the UK arm of Canadian software financiers Sydney Development Company. And the package has a potential market of around 20,000 users, with little competition.

Caston is to head the marketing of the package for Sydney, although he is not joining the company full-time. Caston was at ICL for 27 years before joining a friend in the estate agency business in Deal, Kent. After six years he saw the potential for a system based on microcomputers, which were then starting to emerge. He developed a single-user system on a Tandem machine but later settled on the Prince from the UK manufacturer Digico.

"The Digico computer offers Winchester discs and growth from single user systems to networks," he said.

Six orders for the Digico version have been taken.

Caston and customer... 19,999 to go.

Shares Table

The shares table, which is specially compiled for Computer Weekly, shows selected computer companies that reflect the state of the computer industry.

Date 4/9/83		Index 134.11		Change +1.82			
Price		Change		Price		Change	
1983	1982	1983	1982	1983	1982	1983	1982
High	Low	High	Low	High	Low	High	Low
100	95	100	95	100	95	100	95
105	100	105	100	105	100	105	100
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'Manchester is the place to be to stay ahead of the field'

WHILE the spotlight is fixed on expanding computer companies in the South-east and the Thames Valley, there is one thriving enterprise which has been in Manchester for 12 years and intends to stay there.

It is Northern Software Consultants (NSC), set up by Howard Sherrington on a mere £10,000 share capital and a £20,000 loan.

"Hoskyns got half a million from the NRDC, but then they were in London," remarked Sherrington tersely.

"There were a lot of British companies trying to set themselves up in packages just then but most of them fell by the wayside for lack of expertise. Only Hoskyns and ourselves survived."

He began as chief accountant for Reader's Digest in Canada when they were putting in their first computer, an IBM 1410.

"It was a big monster, 40K memory, enormous!"

He set up his control system for handling two million subscriptions, labelling and billing. When he decided to come back to this country in 1965 he became Austin Reed's computer consultant.

"I knew what I wanted out of a computer by then. I had realised that systems ought to be designed for accountants, not for programmers."

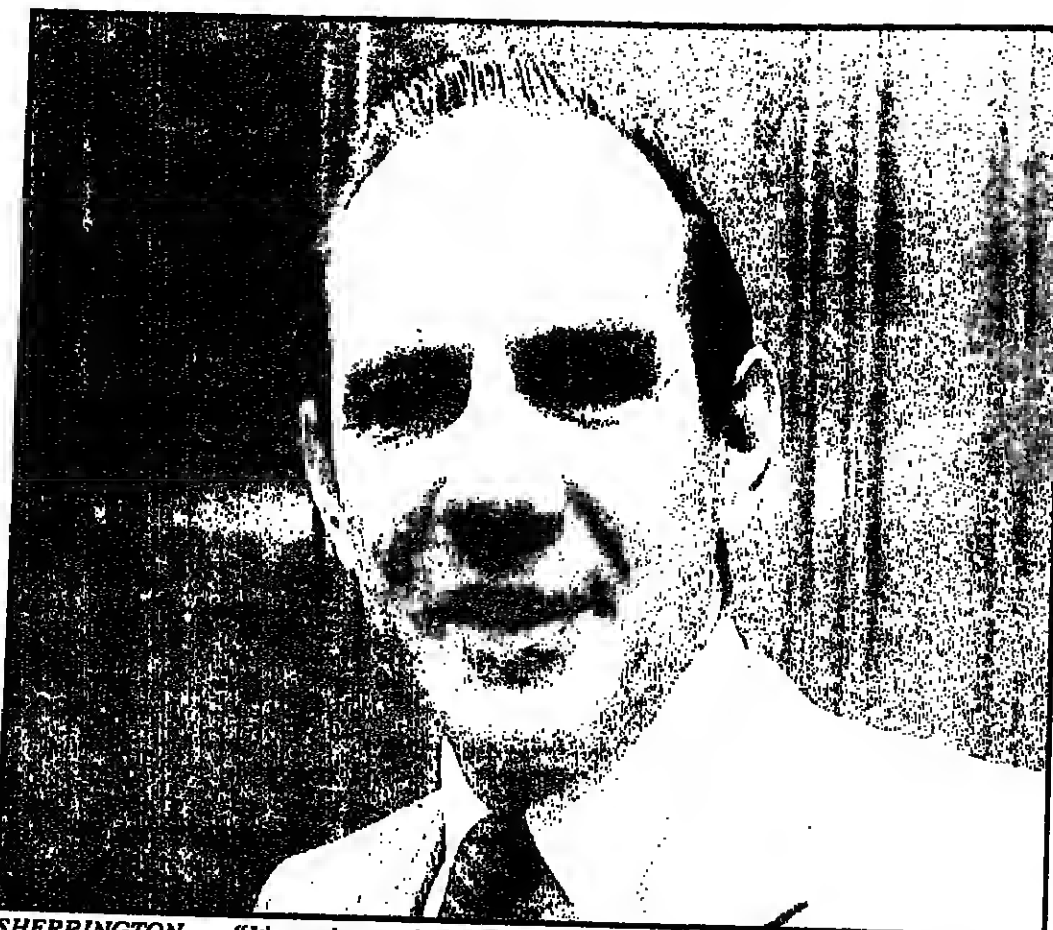
He had to choose their machine. It was to be the first ICL 1901 in Britain.

An Austin Reed director who was a partner in Kidson's accountancy firm invited him to join Kidson's. But that appointment was short-lived and Sherrington went off to become a founder of the successful bureau Datacube.

"I was there three years and in that time I learnt that a package must be just that. People were calling things 'packages' but they always needed adapting. I could see that this wouldn't do."

Datacube was taken over by Rothschilds, later by BOC and then by Thomson. But meanwhile Sherrington had gone on to establish NSC.

He put it in Manchester because that was where he lived and where David Marsden, the technical



SHERRINGTON... "It's an advantage being based in Manchester"

director who came with him from Datacube, lived.

"On reflection I don't know how we did it. The first three years were tough ones."

The company took off with contracts from the Post Office's national data processing service and the National Westminster Bank subsidiary Centrefile. Later they added the ITT data processing service, which was taken over by Control Data.

"They were ordering from us a type of product which didn't then exist, but which we had just promised we could deliver. It was lucky they believed us."

Two developments in the early Seventies proved a boon - decimalisation and the arrival of VAT.

Many firms, realising this meant a software revolution, opted for the package solution as a way out of escalating maintenance problems.

NSC moved into bigger offices - the team of five had tripled.

By 1978 the batch era was nearly over and NSC started putting "front-ends" on its packages to make them workable interactively.

"It didn't take long for us to see that this wasn't going to be enough either. So we set about rewriting the whole lot to make them genuinely real time. Berger Paints was already looking ahead to this in 1980 and trying to find someone who was working in that direction. We were the only ones who were. We're always five years ahead of the field."

He plans to retire when they have pushed turnover up from its present £2 million to £15 million - "that'll be in 1987. No, say 1988."

But the head office will still be in Manchester.

"We need an office in London and one in New York, which we shall get. But it's an advantage being based in Manchester. We recruit only graduates and many of them from Manchester University and we can give them interesting research work, so they stay with us maybe eight or nine years. That's how we've been able to build up to 45 of us."

So Manchester, heart of the first industrial revolution, is managing to find a part in the second as well.

PLATFORM

David Fairbairn is director of the National Computing Centre

If we take this bait, remember who's holding the rod

AFTER the flurry of activity which the Japanese fifth generation papers stimulated, there has been a long silence.

The Alvey Report proposing a British response has for the time being disappeared from view. Not surprisingly many wonder whether the threat from the East may after all be just a paper tiger and surmise that British computing can resume its accustomed path with no great fear of being mauled.

There are, however two respects in which we should take the fifth generation issue seriously and accept that things may never be quite the same again.

The Japanese document is certainly not what it purports to be. If it truly defined their deep laid plans for achieving computing supremacy, it is unlikely that it would have been published at all, and inconceivable that it would have been published in English.

The most sensible interpretation is to see it as a "conditioning" document. On the one hand it sets out to condition the current keepers of the parts of the new technology which the Japanese most need to put their riches, if not in the public domain, at least in some easily accessible place.

On the other, it seeks to condition the marketplace to be receptive, or even demanding, of the kind of computing which the Japanese see themselves as best able to offer in the future.

We are making a passable job of swallowing the bait together with most of the tackle all the way back to the fishing reel itself. It may be right to do so, but we should remember whose hands are holding the rod. The Japanese are a very serious people, and never have they been more serious about anything than their belief that information technology may yield what the co-prosperity sphere could not.

Guidance on the path we should pursue is not to be found in the line words about man-machine interfaces, VLSI and software engineering, important though these may be. There is an issue of a different complexion to it, multiple references to the management of knowledge and the challenge to the conventional Von Neumann principles which this emphasis on knowledge represents.

This is an issue we should take extremely seriously, not as a peace-keeping but with the appreciation that we are seeing the emergence of a complementary style and technique of computing that has the potential of matching and may be even overtaking the familiar techniques of conventional DP.

To find out how useful and significant it may be, we should not waste too much time contemplating the leaves in our trees, but instead put the techniques into a straight-forward but no less active use in solving some of the problems that confront us. I will, I suggest, find that rule-based programming has some immediate benefits to offer.

A high priority must be given to handling complex databases, particularly where we are trying to cope with the unstructured text which constitutes 70% of business information. Rule based programming offers a way of handling such information particularly when using specialised data handling sub-systems of which the ICL CAFS is an outstanding example.

It is a short step from this use of rule based systems to provide for decision support.

On the ultimate use of knowledge based systems it is possible to reserve judgement. What we urgently need is experience in their use. If the response to Alvey expected this month enables that to happen it will be an important step forward.



David Fairbairn

Computer Weekly

Quadrant House, The Quadrant, Sutton, Surrey SM2 5AS

Thursday, March 10, 1983

Big Brother arrives on time

AS 1984 approaches, a growing number of schemes are being announced which will allow our homes to be invaded by electronic devices under the control of third parties.

In this country, we have been told of various means to read electricity meters remotely and to reduce peak loads on the electricity supplies by switching off water heaters in selected homes.

But this is pretty tame stuff compared with developments in cable television accessories in the US.

The Chicago-based company Information Resources has been installing addressable devices that enable it to change advertisements that are seen in selected homes. The devices also log to the nearest five seconds the times that the television they are attached to are switched on and off and which channel they are tuned to (see page 5).

Further, the information gathered about which advertisements reach which homes can be correlated with the purchases the occupants make in the local supermarket.

So far only a small number of people are involved and their participation is voluntary - induced by the chance of a prize. But more widespread implementation and more compelling involvement could give the system a more sinister complexion.

The operation of such systems without the knowledge of the objects of their attention would be particularly easy to implement in a switched star cable television network - the type being advocated strongly by the government and British Telecom.

But it would be possible to do it with any kind of distribution system including off-air broadcasting, given the appropriate adapter at the receiver or the appropriate circuitry built into it. Information could be collected over the telephone network, as it is in the US case, or over the power lines along with the meter readings.

More complete and accurate market research can benefit the consumer community by bringing it better designed and more efficiently delivered goods and services, but privacy and data protection legislation must be made to provide all the necessary safeguards against manipulation.

Falling into place?

IT is all falling into place. The government is to respond soon to the Alvey Committee proposals on future UK information technology research. Meanwhile a report on the future of the British Technology Group has been delayed for at least a month.

The British Technology Group's emphasis is shifting to technology transfer, the exploitation of research in the commercial market. The Alvey Committee also emphasised the need for technology transfer.

These parallel developments suggest that the British Technology Group is being groomed to take a leading role in implementing the Alvey proposals.

If this is so, the £10 million investment limit put on the British Technology Group this year is not the gloomy news it seems. For instead of heralding a rundown of the organisation it would represent a shift of emphasis from equity buying to funding research and bringing it to market.

So it is all falling into place. But if the Alvey proposals do not get through Margaret Thatcher's scrutiny and the British Technology Group is merely being run down, the UK information technology industry could fall apart.

1984 and all that...

THIS week's example of the 'strange things people say about computers' was sent in by Gillian Morris of Leicester, who wins £5. Complex computers also talk to you. "Good morning," they'll say in their bright metallic voices. "Don't forget it's your mother's birthday today."

Leicester Mercury

LETTERS

Opportunities Increasing chances of dubious software in Scotland

I AM disturbed by the inflammatory and unbalanced review of our independent evaluation of the Scottish Microelectronics Development Programme, SMDP (CW, February 17).

My first concern is that the author, Jennifer Boswell, refers to events not described in the report and uses her view of these events to re-interpret and misrepresent our findings. Furthermore she places too much emphasis on the questionnaire findings which show teachers in have been dissatisfied with the service they obtained from SMDP.

The programme staff were involved in many other activities. By ignoring our comments on other activities, she is then able to dismiss as a "non-sequitur" our conclusion that SMDP had made "substantial progress" towards its objectives.

One crucial issue we pointed out in our report was the problem of creating opportunities within the schools for teachers to be given time to develop ways of using microcomputers effectively across the curriculum. We asked for more opportunities in Scotland for in-service training and the full backing of education authorities in providing release to an appropriate range of courses. Neither this issue, nor any of our other main recommendations, was so much as mentioned in the review.

The failure to discuss anything except direct or implicit criticisms of SMDP creates entirely the wrong impression. The tone of the article is so far removed from a dispassionate review of our report that I am left wondering who Jennifer Boswell is, and what SMDP and the Scottish Education Department can have done to offend her so much.

Professor N. J. ENTWISTLE
Head of Education Dept
University of Edinburgh

Good reason for gloom

YOU quote the gloomy responses to the Scottish Microelectronics Development Programme questionnaire. I am not surprised and doubt whether the English MEP has done any better. There is a very good reason for this which the government has consistently avoided discussing.

You don't give the English master a teach-yourself chemistry set, and launch him into the classroom. Yet local authorities up and down the country are giving teachers computer equipment and hoping they will teach computing.

We run a one-year full-time Diploma in Computer Education for classes of 20+ teachers. They are hard pressed to reach the required standards.

What hope is there for the others?

LYNN ANTILL

Senior lecturer

Department of Mathematical Sciences and Computing, Polytechnic of the South Bank, London SE1.

Advice to school-leaver

YOUR sixth-form correspondent D. A. Leather (CW, February 24) and others like him should certainly consider taking a degree. If they can obtain 'B' grades at A-level they could take our Physics with Microcomputing Degree which combines a basic training in physics with the application of microprocessors to the processing of information and to control.

A particular feature of this four-year course is that the whole of the third year is spent in industry acquiring practical experience. This industrial training year not only equips students to make rapid progress in their final year, but also makes them very attractive to prospective employers.

Industrial scholarships, awarded competitively, are available to students on this course.

In the rapidly expanding information technology field there is a severe shortage of adequately trained graduates. Our degree ideally qualifies those thinking of entering this exciting area. Anyone interested can obtain further details on request.

De J. R. RIDER
University of Surrey
Guildford

Godalming
Surrey.

The Editor welcomes letters commenting on subjects published in Computer Weekly, or on original topics. All letters must be accompanied by the writer's name and address, not necessarily for publication. Letters may be cut.

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Please send me details of your modem range.

Signature: *John Smith*

Telephone: _____

DOWNTIME

The power of prayer

THE following story is reported just as it happened, without any quips from your truly. (Well less than usual, anyway.)

The scene is America (where else?), and a group of high-powered executives has found a new way to get ahead - the power of prayer. For these businesspersons are members of the congregation of St Paul's Episcopal Church, Darien, Connecticut.

Stephanie Cimiglin, an IBM marketing person, stood before the altar and the packed house of whizz-kids and spoke of her problems. Her boss, it seems, hated her, and despite praying while watching breakfast TV, in the car on the way to work, and at home before going to bed, her productivity went down.

But was our Stephanie discouraged? Of course not. She stuck with it and was rewarded. Her productivity increased, although she doesn't say whether her boss has left IBM in desperation.

Worse still, a syndicated journalist was quoted as saying: "Jesus' parables were always about people working, fishermen, sowers of seeds. Today we didn't hear from fishermen, we heard from the Xerox workers."

The 150 executives had gathered at St Paul's to hear a day-long session titled "Is Christ Chairman of Your Board?" One ex-president of a textiles company was heard to remark, "Everyone here today would rather be out of-land, but most of us are aware that there is something lacking in industry."

Liveware
File

by
Don

WE NEED AN EXPERT SYSTEM FOR GETTING THE MONEY OUT OF THE GOVERNMENT.



How CW puts its readers in the picture

NOT often is it our lot to push forward the frontiers of knowledge. But Computer Weekly can at least claim to have educated at least one reader, who continues to work and each day passes Storage Technology's glamorous new offices in Essex.

I chanced to fall into conversation with this very reader, who let slip the awful admission that for months, before reading an article on Storage Tech in this journal, he thought the company was involved in making kitchen units.

Computers can be funny sometimes

AT last those awful jokes about Jewish kamikaze pilots crashing their planes in their brothers' scrapyards have been given credence. It seems that a group of Israeli builders have got together to build an estate of prefabs for sale to homeless Palestinians in the Lebanon to replace the houses flattened by Israeli bombs and rockets last year.

The contractors were unable to resist the temptation to advertise the dwellings as bullet-proof.

And my Tel-Aviv correspondent informs me of the latest joke doing the rounds out there:

Computer salesman: "And this is our latest 32 bit micro, but to you, 31."

As you can see, the computer industry is not fished for its jokes. There are, of course, noticeable exceptions to this rule - Immos, the BTG, and IBM operating systems - but on the whole, humour maintains a pretty low profile.

As living proof of this, let us regale you, gentle reader, with what purports to be the first real computer joke.

Paddy: "Ah hello dere Michael, and bow would the new computer project be going then?"

Michael: "Well, bejessus, I'm having a bit of the old trouble with the change of architecture."

Paddy: "And what might that be then Michael?"

Michael: "Well I can't really get the hang of this change from 8bit to 10bit. I can't get my thumb through the holes."

Please, please, can't someone other send me a funny computer joke?

Fractured

WE have suffered bravely with American abominations as ongoing scenario situations, ballparks, pinfeels, types, rip-offs at all, but things have come to a pretty pass when we are expected to take the latest act of hutchery lying down.

In the Press handout concerning an upcoming exposition situation, the presentations in the accompanying conference are not billed as talks, speeches, or even oral-tercourse situations.

Would you believe "Group verbalhage"?



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The exhibition of technology developed in and for schools showed a wide range of inventiveness.

Software is vital for schools plan

John Riley assesses the "micros in schools" programme

THE announcement last week that the government is pumping a further £9 million into its Micro-electronics Programme for Schools (MEP) to extend it until 1986 was widely welcomed by cash-starved educationalists.

The Junior Education Minister, William Shelton, delivered the news to a packed audience at a Birmingham exhibition of the MEP's nationwide activities. Among the invited visitors were teachers, academics, local government officials and examiners.

However, in the wave of euphoria and relief accompanying the announcement, it is important to put the MEP into perspective. Although significant, the MEP is second of three stages with the overall objective to get all schools routinely teaching the principles of computing.

The objective may still founder

at the next stage through lack of funds.

The first stage was the subsidised provision, on a pound for pound basis, of hardware by the Department of Industry. The programme is now well underway with an estimated 98% of secondary schools and 30% of primary schools already possessing micros (but not peripherals) at an estimated total cost to central government of £14 million.

The MEP, funded by the Department of Education is the second, complementary stage, set up to develop educational software and aids, to provide in-service training for teachers, and to co-ordinate and publicise these activities.

The programme had a bumpy start. Originally intended to be a £12 million four-year programme, it was caught up in the 1979 General Election, was delayed a year and ended up with £9 million to be augmented to cover inflation. The spending has been: 1980/1 - £1 million; 1981/2 - £2.8 million; 1982/3 - £3.6 million; 1983/4 - £4.3 million. The additional £9 million for two more years marks a plateau.



FOTHERGILL... Buying is left to school.

However, the third stage, getting the software and aids into the schools, is crucial for the overall success. There is no central assistance to the local authorities or to schools for this purpose, which will have to find the funds from ever-decreasing educational budgets.

As one teacher at the exhibition commented: "Lack of cash, often very minute amounts of cash, brings our plans to a halt in schools."

Richard Fothergill, the enthusiastic director of MEP, himself a former teacher, is all too aware of the problems. "Although many local education authorities buy bulk discounted purchases of MEP developed educational software, others do not have a central purchasing policy, and buying is left entirely to the schools."

"On the whole schools have to find the money from their own resources. Some schools have a lot of money, but the poorer the area the less money there is available, and that is sad."

There are three broad prongs to the MEP's work. About 50% of its grant goes to developing software packages, teaching aids and curricula. The MEP gives grants to projects which will produce materials which can be used nationwide. These are based in schools, polytechnics and universities. Additional aid, worth some £150,000 per annum, has been

drummed up by Fothergill from industry, including IBM, BP and STC.

There are four national MEP centres for software development, which aim to produce cheap but effective packages. These are Oaksea College; St. Mark and St. John College, Plymouth; Nethurst School, Cambridge; and King Edward's Five Ways School, Birmingham.

The latter has developed into a separate commercial operation and has sold its software to Australia and to the US.

Fothergill says that some 400 programs have been developed already, which retail on average from £7 to £15, and many more in the development stage. Commercial publishers Longman and Heinemann are involved in selling the products abroad, and Fothergill is also pushing for an additional consortium approach for exports.

The MEP also backs development of educational aids. Examples include a microscope based measuring device developed by Leeds University which retails at £175, and "Bugsy", a programmable robot device developed by MEP for the BBC Computer Literacy Project, which will cost schools about £100.

Paradoxically, the more expensive aids such as these are easier to get into schools than the cheaper items. Fothergill explained: "They are just the sort of thing that get Rotary Clubs or Parent Associations to donate. The great difficulty is to get funding for something you can't stick a label on, like a box of transistors."

The exhibition of electronics and control technology developed in and for schools in Birmingham displayed a wide range of inventiveness, and adaptability. For example the pupils at a large primary school in Canby had made their own bugsy for £1.

The MEP is closely concerned with developing the curriculum, and has regular meetings with examining boards and the universities. There are signs that curricula may increasingly cover social implications of computers in addition to the electronic aspects. The National Union of Teachers has been pushing for this.

Some 15,000 secondary teachers have taken two-day courses in computer awareness, and many are taking part in more extended in-service training courses organised by the MEP.



SHELTON... Another £9 million for MEP.

PARTNERS WITH JAPAN

East-West links shift emphasis

by Kevin Cahill

WHEN it comes to collaborative deals with Japanese computer companies, ICL is far from alone among large Western computer companies, according to Shinichi Kakizawa.

Speaking to the knowledge-based engineering department at the South Bank Polytechnic in London, the Japanese technology futurologist told his audience that the Fujitsu-ICL deal was typical of the way Japanese computer companies had operated since the war.

What had obscured the "winning" process from UK eyes was the fact that most of the early deals were with American companies and the deals were partly aimed at helping Japan to recover from the effects of the Second World War.

Currently, there was a major shift occurring in the original arrangements with Japan now becoming the supplier to the US companies from which it had initially purchased technology and expertise.

Kakizawa identified IBM as a leading "purchaser" of technology from Japanese companies.

Unlike many of the US companies which did computer deals after the war, IBM went it alone in Japan, and for many years was that country's number one computer company.

A recently completed survey by the British Institute of Business Administration shows that among mainframe suppliers, IBM is still number one in terms of value of equipment supplied, although the company has lost market share of 3.8% since last year, while rivals Hitachi and Fujitsu have both increased market share by a little more than 1% each.

In terms of installed base units Fujitsu came top, with 1,391 machines while IBM had a mere 867 units installed.

Kakizawa says that regarding

Japanese suppliers to IBM.

Hitachi: Burroughs (optical communication, SBC)

Sun Microsystems (NEC): Telogy (super mainframes)

Mitsubishi: Univac (IC, LSI, peripherals)

Sharp: Olivetti (office automation)

Seagay: HP (microfloppy)

Fujitsu: IBM (laser printers, discs)

Major new relationships between Japanese and foreign computer companies.

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Sun Microsystems (NEC): Telogy (super mainframes)

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Se

Over the past two years, the Co-operative Bank has transformed its data entry... Nicholas Enticknap reports

Co-op takes the 'unfashionable' path to efficiency

DATA processing managers looking for increases in efficiency and productivity could do a lot worse than take a close look at their data entry applications. This unfashionable part of the DP operation often escapes attention - it's probably been running smoothly for a number of years, not causing any problems, and there has been little in the way of technological innovation to force a reappraisal.

Online applications have attracted a lot of attention and interest, but traditional batch data entry, though still for many applications the only cost-effective method, has been comparatively ignored.

In fact, however, there are significant gains in cost-effectiveness to be made in many installations. Key-to-disc systems, for example, have gradually incorporated all the same developments in microelectronics technology that have had such an impact on computing eco-

nomics generally. They are more powerful, more reliable and cost significantly less than they did five years ago.

Many of the organisations that still use punched card equipment can now gain from a switch to key-to-disc when they couldn't before.

A case in point is the Co-operative Bank, which over the past two years has radically transformed its data entry operations.

The transformation started at the bank's processing centre in Skelmersdale. This is the clerical and computing heart of the bank, with a mainframe installation based today on two IBM 3031s and a 4341. The major application is the processing of customer accounts.

Cheque reading is done by high-speed MICR readers, but cheques that cannot be read in this way for any reason, plus all transaction documents that do not have MICR characters, were entered to the mainframes via specialised data

capture equipment. Prior to installation of high-speed reader sorters this semi-automatic equipment processed all transactions but was inappropriate for capture of manual items only.

As a result, the Co-op looked around for an alternative solution and decided that the time was ripe to move to key-to-disc. The bank also negotiated the sale of what would become surplus equipment on the condition that the delivery of the new equipment would be made by a certain date. The choice of key-to-disc supplier was, therefore, determined not only by technical factors, but also by the ability to be able to deliver within the prescribed timescale.

Rediffusion Computers was the supplier chosen. The system was a twin R400/70 with 14 workstations (a duplex system was necessary to avert any possibility of downtime). Each processor had a five Mbyte disc, and the configuration was

completed by matrix printers and a switching unit to enable a rapid changeover of processors if necessary. As Jack Shaw, one of the bank's systems managers says: "This move to the most modern equipment actually saved the bank money, as the rental cost of the R400 system compared favourably with maintenance charges levied

on the previous kit." The bank decided on rental for the first 12 months for precautionary reasons, but was soon convinced of the value of the system and elected to purchase it before the 12 months were up, he said.

Once the system was installed and processing the customer account transaction documents satisfactorily, it became clear that it could also be used to increase efficiency in another area. This was the bank's Handycard operation: a shopper's card facility for customers that allows them to spread out the cost of their purchase in Co-operative stores over a period of time.

Up to last year, the processing had been entirely handled by a bureau but a decision was taken to bring the operation in-house.

So the decision was taken to put the processing of the credit card transaction in the Rediffusion equipment. It has, of course, considerably increased the workload on the R400 system, and accordingly the bank has acquired an extra 10 workstations.

That workload is now being still further increased by a policy decision to put all remaining data entry applications at Skelmersdale on to the equipment. These are mainly lower volume applications - cheque book requests and the like.

Previously run on various earlier types of the equipment. That process was completed in November.

The original cheque reject and non-MICR processing application has now been taken off the system. Early this year the bank decided to consolidate its internal clearing operations into its London Clearing Centre.

That meant a need for a new data entry system. It also meant that the previous link between the data entry equipment and the mainframes - physical movement of magnetic tape - was too slow. Management at the head office in Manchester needed to have access to the day's cheque-clearing data on the same day," said Shaw. As a result, the bank started looking for a system with RJR facilities.

In the event, it was to Rediffusion that the Co-op turned again. The choice of the R400s had proved a happy one, as Jack Shaw said. "The equipment and software have proved extremely reliable. And when we have had problems, I've liked the service. Faults have been fixed very quickly, and Rediffusion has provided a lot of helpful advice."

The new equipment was a twin R50 system. The Co-op was able to

transfer the software developed for the R400s straight over without change. The only software development necessary was on the RJR parameters.

The users in London enter the data or processing requirements to the system, following the procedure specified on the screens. The system itself formats the message with the required send and termination statements, and transmits them down the 9600-baud link.

The Co-op, said Shaw, is planning further data entry developments. "Another Rediffusion system, an R800, was installed two months ago at the bank's Manchester head office. This will be used both for RJR linking to the Skelmersdale mainframes, and for processing accounting information. The bank is also experimenting

with a Viewdata Pin system to see how viewdata could be used to help the bank's branches have instant access to the mainframe database," he said.

Today, less than two years after the first key-to-disc system arrived, the equipment is processing some 100,000 data entry transactions a day.

The workload has significantly increased, and the organisation has changed with the consolidation of the cheque clearing, so any direct comparison would be meaningless. But he is in no doubt that the new systems have contributed greatly to the bank's efficiency.

The previous generation of data entry equipment was very noisy, so much so that it was often difficult for people to hear each other speak. The new kit is much quieter, and has therefore improved working conditions.

Then, because several different kinds of equipment have been replaced by one kind, operators are now interchangeable between applications. This gives them greater variety while providing management with more flexibility.

The new equipment was a twin R50 system. The Co-op was able to

transfer the software developed for the R400s straight over without change. The only software development necessary was on the RJR parameters.

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SHAW... Planning further data entry developments.



Rediffusion equipment in use at the Co-operative Bank.

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SOFTWARE MONTH

COMPUTER WEEKLY March 10 1983 17

Until recently DEC saw itself as almost exclusively a hardware supplier. Now the company is concerned to improve the software of its systems

DEC's clangers on the road to better systems

DIGITAL Equipment has never been renowned for its software. In the early days, of course, the company never aspired to the lofty heights of software excellence: but in more recent years, under the leadership of its chief, Ken Olsen, it has shown a growing and often improving attitude towards systems and applications software.

On the way, it has made a few errors and dropped a few clangers. One of the most successful software packages ever produced by DEC in WPS8, the word processing system that started life way back in the mid-Seventies on the standalone WS78 word processor.

The story goes that deep within the heart of DEC, the development team behind WPS8,

flushed with success, demanded the opportunity to convert the system to run on the enormously successful PDP-11 range of minicomputers. But this was contrary to corporate policy.

At any rate, the company did nothing about putting WPS8 on the PDP-11 range. In the meantime, the software designers had sufficient faith in their own ideas to leave DEC and form their own company, Data Processing Design (better known as DPD) to write a word processor for the PDP: the product is WORD11.

WORD11 has become a world leader in word processing for the PDP-11 range, while the WS200 has disappeared from view. But the story doesn't end there, be-

cause last year DEC went to DPD and bought the rights to sell a RSTS version of WORD11, now called DECword.

If this was a solitary tale, it could be put down more to bad luck than poor planning. But it isn't. There is yet the story of Trax

an even more horrendous corporate clanger. CSS, the special systems division of DEC UK, was involved in a project for the Irish bus and train company, CIE. The requirement was for a bespoke transaction processing system. On completion, it occurred to the UK software team that this product could be developed into a general purpose and saleable TP system with very little effort. Work went ahead.

In early 1978 the UK-produced monitor, TPM70 (Transaction Processing Monitor for the 11/70) was released and installed at CIE; and has worked very well ever since. At the same time, the lessons learnt on TPM70 were applied to some half dozen other CSS projects.

At this point, or so the story goes, the UK project leader concerned DEC headquarters in Massachusetts to persuade senior management to adopt TPM70 as a corporate product. But - horror of horrors! - he was merely told that another product, TPS-11, was about to be officially launched as Trax.

The UK software team tried to persuade DEC that Trax suffered from at least two major design flaws that would inhibit its market success: first, it needed special and expensive new terminals, the VT62, and second, no other software could run at the same time.

In other words, even program development would entail shutting down at least two major design flaws that would inhibit its market success: first, it needed special and expensive new terminals, the VT62, and second, no other software could run at the same time.

Meanwhile, Trax was released with all the success of what has been described as "a damp squib". More and more software problems came to light in the field, and by the time that DEC had gained some 30 worldwide Trax customers, it had become clear that the product was not commercially viable. By 1981 DEC seems to have abandoned the product, and spent some time trying to persuade its customers to do the same.

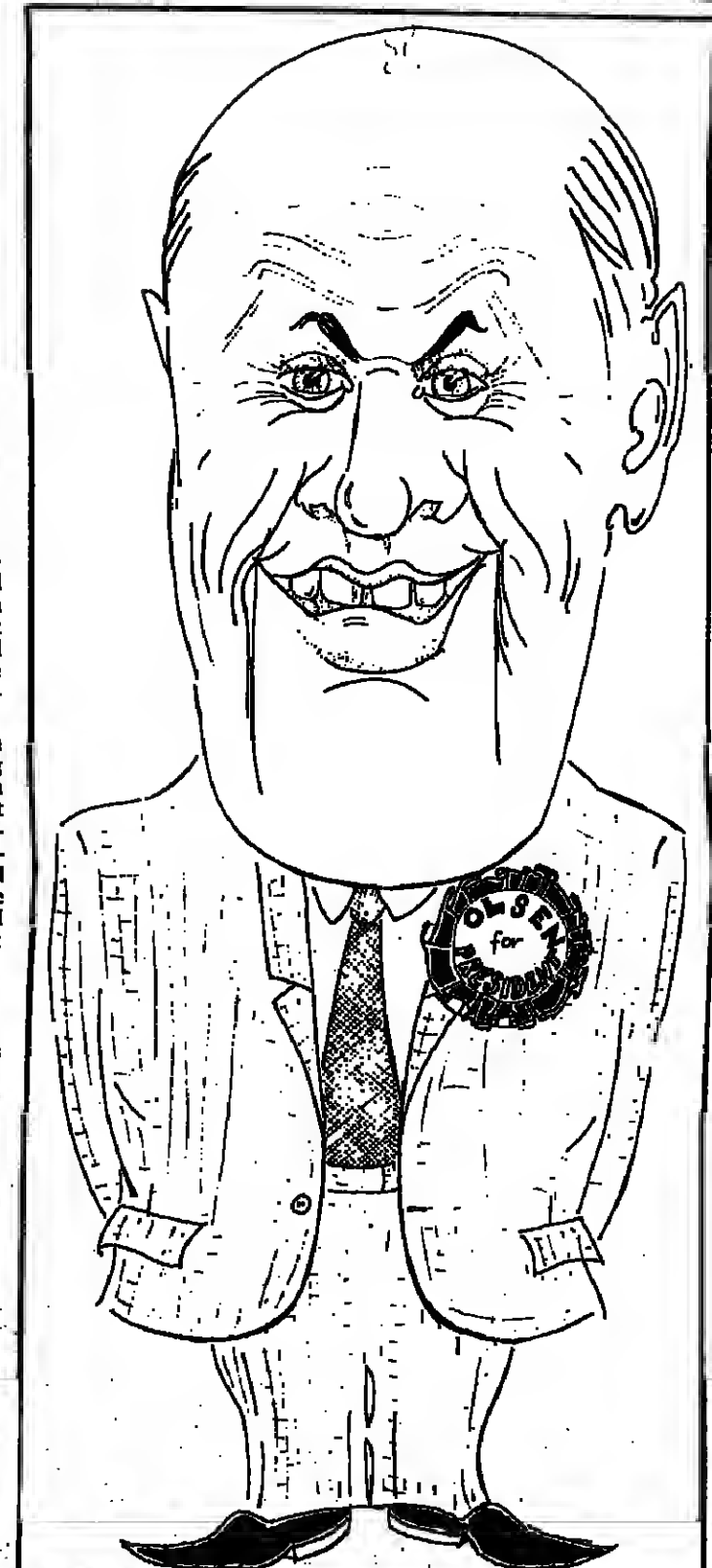
Trax is dead; but TPM70 lives on. It migrated with its designers from DEC to Systech, where the success partnership of the Seventies, John Gow and John Parkinson, adopted the wail. It grew and evolved, and finally emerged as Systech, the successful Systech TP system for the Vax range of superminis.

Can it be simple coincidence that DEC, like so many other major US companies, is now investing heavily in UK software?

Olsen's DEC is giving software greater attention.



PARKINSON... Adopted TPM 70, renamed it Systech and turned it into a success.



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DEC is a front runner in the personal market

Company aims to be the leading source of micro applications software

AFTER the initial "toe-in-the-water" launch of the Robin personal computer, a VT100 terminal with a processor transplant - DEC has finally emerged as a leading contender in the personal computer marketplace.

The three major products, initially launched in the summer of 1982 and effectively re-launched in January 1983, are finally appearing - and selling. In fact, Hamilton Rentals, a UK company that has been specialising in DEC word processors since 1977, has just announced that it is the first of a small number of dealers signed to handle the DECmate II, and that within days of signing the agreement, it had already sold the greater part of its initial stockholding to Rolichs, CitiBank, Shell and so on.

In many ways, the DECmate II is the most interesting of the new

machines. It is a direct lineal descendant of the WS78, still running the original WPS8 software, but with the addition of maths.

This time, however, DEC has paid cursory homage to the current vogue for "convergence" in small systems: not only is it a word processor, but with the addition of a Z80 board it can become a CP/M micro as well. The concept, of course is little different from many other new micros that concentrate on one processor but also provide the option into the software library of another. The primary processor for the DECmate II is the 6102; a PDP-8 on a chip.

It is the Rainbow, and perhaps even more so, the Professional personal computers that are provoking most interest at the moment. Both have new and exciting features.

The Rainbow 100 is another

duel processor system: but in this case, both processors are integral to the system. The processors concerned are the Z80 and the 8088, a combination that provides immediate access to the vast majority of minicomputer software running under the CP/M, MSDOS and CP/M-86 operating systems.

Both unlike most other systems, the Rainbow's processors are not user selectable: both are used automatically. In fact, the two processors divide the system functions between themselves: the Z80 controls the floppy disc interface while the video display, the keyboard, the I/O port and options are controlled by the 8088.

To make the most of this concept, DEC and Digital Research collaborated in the design of a new operating system: CP/M 86/80, a hybrid 8-bit CP/M and 16-bit CP/M 86. It includes a fea-

ture named by DEC as "soft sense," a function that allows either 8-bit or 16-bit CP/M software to run without any operator intervention.

The CP/M 86/80 operating system itself determines whether the applications package be an 8-bit or a 16-bit program, and then executes the instructions with the appropriate processor and operating system subset.

Paul Bailey, director of European operations for Digital Research, pointed out that DEC is one of the first companies to implement 8- and 16-bit applications in the same box. In this case, the implementation is a standard part of the product - the user doesn't have to buy, say, a special card.

"I believe that DEC followed this trend because it recognised the



CATTRELL... "MSDOS will also run."

Operating systems face major change

THAT Digital Equipment has never been renowned for the success of its software is a view shared by Philip Stephenson-Payne, a technical software consultant with DEC OEM, Systime. He said: "Ever since the PDP-8 days, DEC has been producing some of the best minicomputer software available. From the point of view of hardware alone, the PDP-8, PDP-11 and Vax-11 ranges are superlative, both in terms of flexibility and reliability."

"If anywhere, DEC tends to fall down rather more on its software. In terms of operating systems, seven years ago DEC had fairly well-defined operating systems for the PDP-11, each for a particular class of user (RSTS for the commercial world, RSX for the scientific world, and so on), but as time went by, the operating systems began to have time-sharing features and RSTS began to allow real time processing."

While this flexibility was very nice in many ways, it inevitably led to all the inefficiencies inherent in

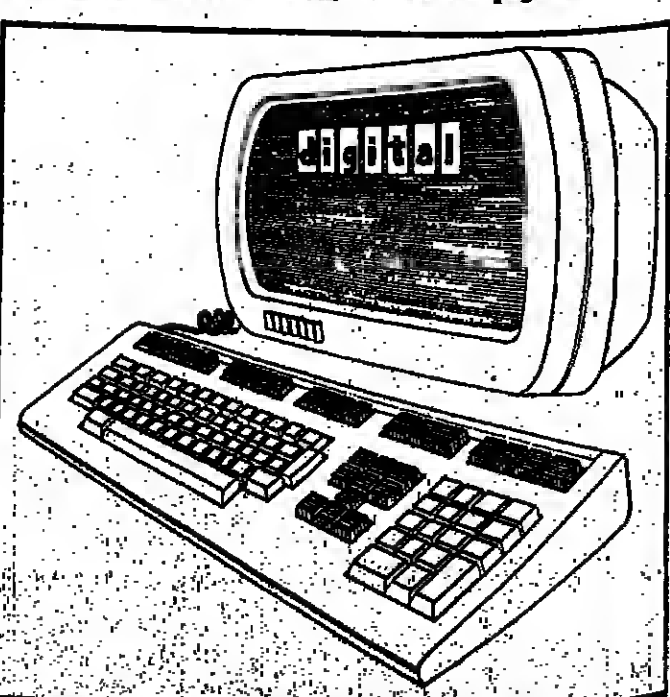
general-purpose operating systems, such as increased processor overheads.

Clearly, this is a situation that DEC itself is none too pleased about. For its newest large system operating system, it seems to have taken two new steps. First, there is now just one system for the Vax range, VMS - as opposed to the variety available for the PDP range. Second, DEC has withdrawn

the sources. In the beginning, this caused considerable problems for the software houses, particularly while the first obscure VMS bugs were still about. More recently life has become easier with the release of the VMS internals manual. But Stephenson-Payne laments that "many aspects of VMS, such as tuning, are still only managed by a VMS Wizard."

DEC itself sees things differently. Martin Lomas, a VMS marketing specialist at Reading, claimed that "VMS was designed to be available as a multi-user,

Turn to page 19



VMS was designed as a multiuser, real-time and batch system.

Range of micros ties in with big machines

From Page 18

large amount of good 8-bit software which is available. Having decided to follow the route of dual architecture, Digital Research proved to be the only company which should offer an operating system for their machines." This, of course, is not quite true in detail, for as Lawrence Cattell, DEC's UK small systems business manager, confirmed recently, "MSDOS will also run, and will be available in March."

To support this and the Professional PC, DEC is establishing a national network of dealer outlets throughout the UK. Ian Waring, UK dealers software specialist, confirmed that "there are already 55 dealer outlets in this country, ranging from Computerland to the Xerox store. By July, we expect to have 100."

Underlying the whole market strategy for the new systems is the Digital Software Catalogue. Back in April 1982 the company first announced its intention to become the world's leading source of applications software, under the banner of Digital Classified Software (DCS).

In January of this year Mark Wright, applications products business manager, introduced the first edition of the Software Catalogue with the assurance: "All the software included has been personally evaluated by our own software engineers..." which makes the Digital Classified Software a more ambitious project than many of its rivals.

The first UK DCS agreement was signed in the summer of 1982 between DEC and Peachtree. At the time, Wright said: "It is important for our customers that they have a fully integrated family of business software and Digital is pleased to recommend Peachtree's software to meet this need. Peachtree's software is recognised as well established, reliable and has the requisite functionality."

Of Micro Focus, perhaps the UK's best known micro software producers, he declared: "Some of the more sophisticated applications in the DCS catalogue are written in Micro Focus Cobol and we are pleased to offer the whole range of Micro Focus products for the DEC family of personal computers."

On the importance of the DCS agreement with DEC, Peter Hewitt, marketing manager at Micro Focus, explained: "Level II Cobol is the only Cobol for the Professional models. It is the only software that offers compatibility with the CP/M and CP/M-86 environment on the Rainbow, on which it also runs."

"This means that users enjoy total source code compatibility for applications on either range of equipment. As DEC will also be selling CIS Cobol on the Robin and DECmate II there is a clear growth path for Cobol users from the smallest DEC personal computer to the top of the range."

The top of the range is, of course, the Professional 300 series, comprising the 325 and 350 models, and claimed by DEC to "contain a 16-bit PDP-11 minicomputer. Both include 256 Kbytes of main memory. Each system includes a diskette drive with 800 Kbytes of storage capacity on two 5 1/4-inch diskettes." An integral 5 Mbyte Winchester disc is one of the main options.

Not everyone, however, is totally enamoured of the new Professional. Gavelstopping at a recent DEC US presentation on the 350 we learnt the following points: The terminal attached to the PC350 is dumb. Everything it does, including flashing the cursor, is performed by the Terminal Firmware task that sits on top of the Terminal Driver. This produces a heavy overhead on the processor.

The use of memory appears to be the main query hanging over the 350. Of the 256K available, about half is used by the P/OS operating system and the Terminal Firmware task. Furthermore, software running on the PC will probably be linked, or at least, with RMS, FMS, Graphics routines and a language specific OTS - each of which (other than FMS, which is a memory-resident) is implemented as a cluster library.

Once all of these have been loaded, there would appear to be little room left for the applications program. The result is that even in a single-task operation, the 350 spends much of its time swapping library routines in and out of memory. And because of this, it is already rumoured that DEC soon will change the P11 (11/23 chip) to a J11 (11/70 chip).

For a final word, we asked David England of DM England and Partners, for his opinion of the new DEC hardware and its effect on the market. "For a software company," he replied, "the advantage is the breadth of the DEC range of compatible equipment right through from the Professional micro to the large Vax mainframes. For example, our Final (financial modelling and analysis system) offers identical facilities across the entire range of DEC equipment. This greatly simplifies the problem of support. We see P/OS RSX-VMS as a remarkable growth pattern for mature users of microcomputer equipment."

"At first sight, there seemed a good chance that the package could be adapted to run on the Professional 300 series personal computers without much difficulty."

At first sight, there seemed a good chance that the package could be adapted to run on the Professional 300 series personal computers without much difficulty."



Peachtree managing director John Hale whose company has signed as a DEC software supplier.



Paul Bailey (right) with Digital Research founder and president Gary Kildall.

DEC moves towards standardisation

From Page 18

batch and real time system. While it can be tuned, to a degree, to be more suitable for one or the other, most users need all three applications. As a multi-user system, it can support between one and 100 active terminals at any time, depending only on the processor and application. As an operating system it follows the general trend of making the system easier for the user. "The system itself," he went on, "ensures maximum efficiency of system use."

Answering the criticism that DEC has never released a viable TP monitor for VMS, Lomas claimed that "the concept of multi-user VMS makes the necessity for a TP monitor overly less important. Most of the requirements for a TP monitor are already inherent in the system."

"They couldn't kill it, not RSTS, so they had to 'save it'."

"In general," he concluded, "VMS reflects DEC's strong moves towards rationalisation, standardisation, and compatibility."

The instruction set for the entire Vax range is fixed. There is just one operating system for the whole range. It allows us to concentrate our support expertise to the advantage of the user. In one sense, it is the sum total of all we learnt in the PDP-11 range."

It is perhaps this avowed move towards standardisation that has caused continued fears that a number of the PDP-11 operating systems are to be abandoned. Indeed, throughout 1982 it was rumoured that DEC was about to kill off RSTS - and perhaps Mumps as well - but this ignored the tenacity of RSTS element of DEC US.

"They couldn't kill it, not RSTS, so they had to 'save it'."

wrote the American magazine Computers - R - Digital. This was confirmed by Ron Fernandez, a RSTS software support specialist.

"RSTS is very much alive," he said. "It was originally designed for the education environment, but then commerce got hold of it and it just grew and grew. Two years ago it was thought to be dead, but the user base was too strong."

But now there is likely to be another major release in the near future. RSTS version 8 is already out on field test."

It may not, however, simply be the strength of the RSTS support club that maintains its existence - for the time being at least. DEC will obviously want its PDP-11 users to migrate to the Vax range, but there is, as yet, no easy conversion path from RSTS.

Lomas confirmed this, while also explaining that there are some

conversion utilities already available.

"The main problem," he said, "is moving from RSTS to VMS is that users tend to write systems calls to the instruction level of the processor, and the end result is simply not compatible with VMS."

Perhaps the final word should be left to the American manuals which ease the migration path via both technical information and public relations (you really did want a Vax, you were just too scared to admit it), from RSTS to Vax.

This path has to be considered a replacement and not just a supplement. It is a dual concept... to allow those systems that outgrew an 11/70 to migrate to Vax with some degree of salvage of both staff and software. A Vax may turn out to be cheaper in hardware and more expensive in software than a new 11/70."

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- 09.30 Registration and Coffee.
- 10.00 What hardware should you sell? - the amount of technology on the market is bewildering. What products and types of devices are here today, and more importantly, which can make money for you?
- 10.30 What software should you sell? - It is tempting to go for the established products such as CP/M, Wordstar and Visicalc. But is this the best route to success?
- 11.00 Who should you sell to? - are vertical markets the way forward, or is a more general approach to marketing called for?
- 11.30 Coffee.
- 11.45 Support - how much should you give? - are cut prices and a cash and carry attitude preferable to comprehensive user support, or is there room for both methods?
- 12.15 What a software house looks for in a dealer? - a leading software house explains its selection criteria for the organisations which will be its interface with the consumer.
- 12.45 Lunch.
- 14.00 Selling and licensing through large manufacturers - you may have a product needed by a major computer company. How should you go about convincing them?
- 14.30 Dealing with the majors 1 - ICL and the Tradepoint scheme.
- 15.00 Dealing with the majors 2 - IBM and its attitude to third party vendors. A rare chance to get behind the facade of this enigmatic giant.
- 15.30 Dealing with the majors 3 - DEC and its authorised dealer scheme. The world leader in minicomputers talks about selling for them.
- 16.00 Close.

WEDNESDAY, APRIL 27

- 09.30 Registration and Coffee.
- 10.00 What's new? - hardware developments - an overview of the current state of the art. Everything you ever wanted to know about micro floppies, low cost printers, Winchester and local area networks.
- 10.30 What's new? - software developments - database management, operating systems, and the latest trends in applications software are discussed.
- 11.00 Putting it together - the problems of plug incompatibility - what fits with what, and what won't. A look at putting together turnkey packages.
- 11.30 Coffee.
- 11.45 Marketing your own product - a software house case study. A behind the scenes look at how to do it right the first time.
- 12.15 Selling yourself - how to get your name known by the right type of customer. The power of advertising should be working for you.
- 12.45 Lunch.
- 14.00 Don't ignore the man in the street: a case study - home computer users are becoming more sophisticated. High volume. Low cost products may be right for you.
- 14.30 Selling into business: a case study - higher unit costs appear at first sight, but is the commercial user a tougher nut to crack than the home user?
- 15.00 Selling a US product in the UK - there's a vast pool of packages across the water. How, and why, you should sell them to the British consumer.
- 15.30 A future look - where will you be in a year's time.
- 16.00 Close.

REGISTRATION FORM

Please complete in block capitals and send to: Conference Administrator, Room 1313, Surrey House, Thorney Way, Sutton, Surrey SM1 4QQ. Tel 01-643 8040, Ext. 4890 and 4892.

Please reserve places for the Computer Trade Conference, the Computer Trade Show (if applicable) and visiting.

Please send me details about exhibiting, visiting, and the Computer Trade Show (if applicable).

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and here's
your invitation

Please indicate which sessions you will be attending:
April 26 - April 27. The fee of £170 plus £25.50 VAT for two days or £90 plus £13.50 VAT for one day covers attendance, coffee, lunch and conference documentation. Tax invoice will be sent.

SOFTWARE MONTH

THE MAINFRAME and micro worlds still have a rather different culture, and recently I found myself wondering about the difference between financial planning systems (mostly mainframe affairs) and electronic spreadsheets (mostly micro). Market leaders in the financial planning area include products like FCS, FPS, and Empire, while leading spreadsheet products include VisiCalc and SuperCalc.

At first, it looked as if the two types of product provided more or less identical functions, the main difference being price and user friendliness. I thought of financial planning packages as being less user friendly, and more expensive due to the costs of sale and support in the DP environment. Spread sheets, on the other hand, seemed to be the cheap and cheerful micro equivalents.

It turns out that this view is absolutely incorrect. Financial planning systems (called FPS from now on) are for more powerful than spreadsheet, although they address the same kinds of question. As their experience grows, many spreadsheet users and themselves needing the kinds of facilities FPS can offer. As for ease of use goes, spreadsheets are somewhat easier to learn - but users are soon forced into intellectual gymnastics to do what they want.

Price difference, too, is not necessarily large. You can buy an

Separate ways to financial modelling

FPS for a micro at micro-type prices. The best known is DSS/Finance, also known as MicroModeler. Also, vendors of mainframe and mini-oriented products are bringing out micro versions. Market leader FCS is now available (as Micro-FCS) and Comshare is offering its Target system.

The first difference you notice between FPS and spreadsheet is that the way you go about doing things is different. With spreadsheet, data and formulae defining cell dependencies are directly added into a blank electronic spreadsheet. The financial model and its data are locked together. When viewing the results, users are forced to look at the spreadsheet in a way closely corresponding to how it was defined.

With an FPS, however, there are clear demarcations between defining the financial model, entering data for the model, processing

the model, and reporting the results. In one mode, spreadsheet and cell interdependencies are defined. In another, sets of data to be input are defined. So it's easy to define a number of different sets of data representing different what-if circumstances, and feed these separately into a previously defined central model.

In the processing mode, what-if sets of data are then applied to the model. Here, everything a spreadsheet can do, FPS can do better - by and large.

Lastly, FPS offers sophisticated ad hoc report writing facilities. Aside from these general differences of architecture, there are many other differences between spreadsheet and FPS. Some of the most important include:

Model size. Models soon become too large on a spreadsheet. Support. FPS vendors generally provide users with classes and a

telephone hot line.

Programmers' front end. FPS models can be presented to users via a turnkey front end. Auditability. It's much easier to determine how a model is defined with an FPS.

Learning time. Spread sheets are easier to learn. Processing. FPS have advanced and very useful processing facilities, such as risk analysis, sensitivity analysis, hierarchical consolidation, statistics and forecasting, linear optimisation and 'goal seeking'.

Put crudely, FPS are for people who take their modelling seriously, while spreadsheet users are for the dilettantes (I say this as an enthusiastic spreadsheet dilettante myself). Since the two types of product address similar problems, it's reasonable to ask whether time will permit spread sheets to catch up with FPS functionality. Will

the clear-cut distinction between spreadsheet and FPS gradually fade?

The correct answer is an equivocal one: in some ways, yes, and in some ways, no.

On the one hand, spread sheets are definitely getting more sophisticated, as a result of user demands.

FPS developers are also learning from spreadsheet technology. In particular, some of the more elegant characteristics of the micro world are being incorporated.

Over the long term, differences are likely to remain. There will always be features that planners of large companies will need, that most people doing financial planning simply never need - multi-dimensional, multi-currency consolidation of international subsidiaries, for example. Although there are relatively few such users, they can justify paying



David Ferris is a software consultant based in San Francisco and London. Covering technical, marketing issues, he writes hardware, software and some capitalist firms.

a high price for the extra functionality.

So it looks as if 10 years from now, the market for financial planning packages will consist of two types of product: cheap, easy market packages with capabilities lying between today's FPS and spreadsheet, and ultra-sophisticated, feature-laden FPS serving the top management of big firms.

David Ferris

PRODUCTIVITY TOOLS

Breaking down the wall between 'them' and 'us'

Last year Computer Weekly published case studies on users of two advanced software development tools, Cincom's Mantis and UFO. Here, John Wilkinson, manager of materials and project systems at John Brown Engineers and Constructors, describes his company's experience with Sperry Univac's Mapper system which has helped users and DP personnel arrive at a better understanding.

wanted the base information required for plant maintenance. The basic philosophy of these requirements had been defined and programming was about to start when Mapper became available.

The requirements demanded recording and recreation of files and there were no easy rules on which programming could be based. A lot of data checking would be required to ensure that the demands had been correctly met. But Mapper solved some of these problems overnight and provided other facilities as well. Mapper provides the means for each user to manipulate his own data using simple language and very little training is required to reach a reasonable level of competence. It provides easy access to the whole of each file held, and allows the user to roll through files and update the data on a real time basis.

These facilities allowed files to

be easily created from data held in the databases. Files which were then used to keep the records up to date as well as create the data required by the operators and accountants. The importance of this simple statement is that the work was done very quickly by project staff with very little input from DP personnel. It became a simple task carried out by clerical staff.

This was the beginning. It was clear to all that we now had a tool in our hands which would make it very easy to process and manipulate large quantities of data. The speed with which information books could be set up and used depended more on how fast data could be typed rather than how quickly programs could be produced.

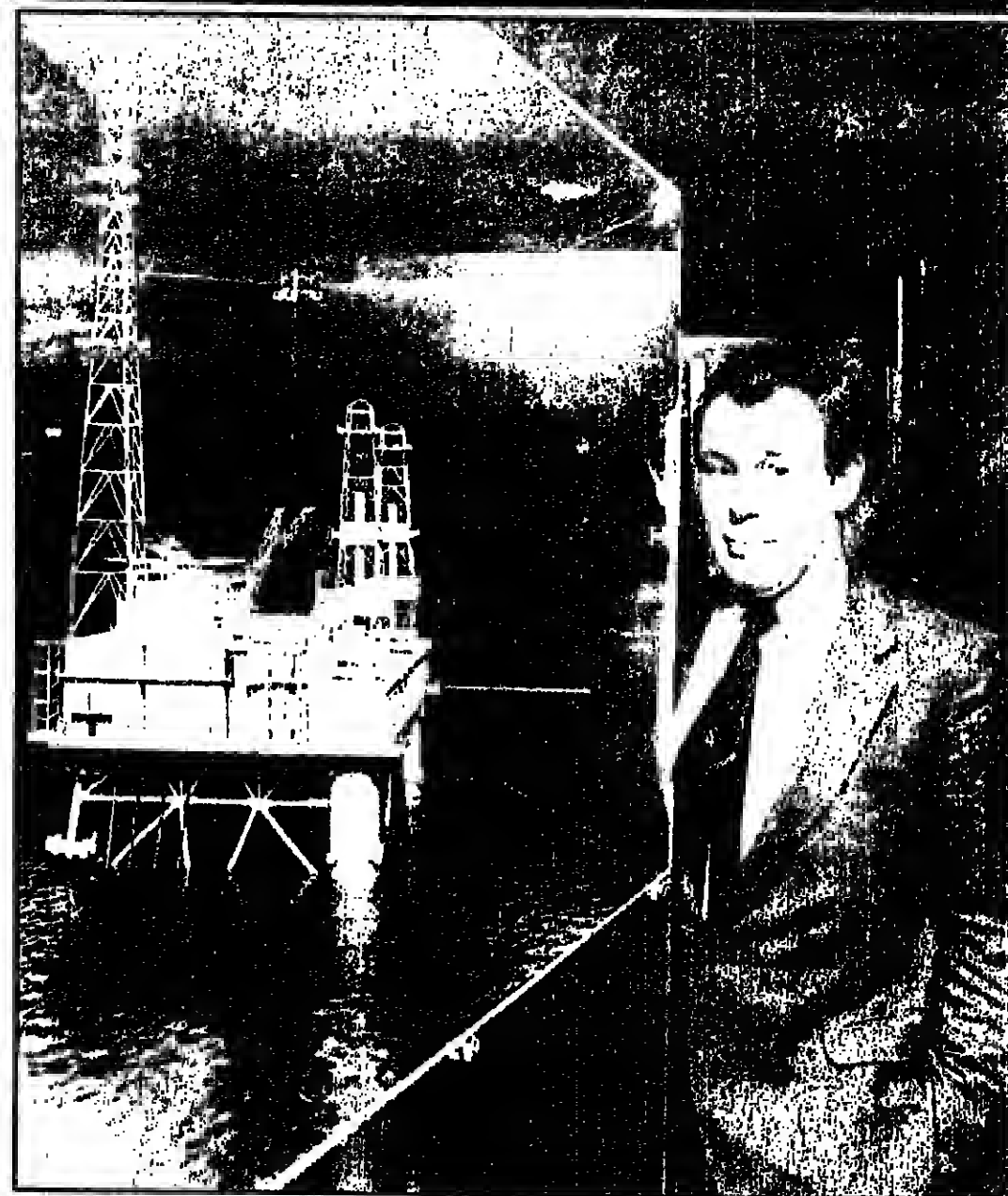
This ability of users to produce visible results without waiting for their requirements to be interpreted has an even more important effect. It changed attitudes to the computer. Scorn and derision turned into praise and enthusiasm. The black box became understandable and people wanted to be involved in this exciting development.

Site staff designed systems to control work and assess progress, engineering departments computerised schedules of design data and set up drawing control procedures, administrative input manpower loading records and cost controllers used Mapper as a real time working document.

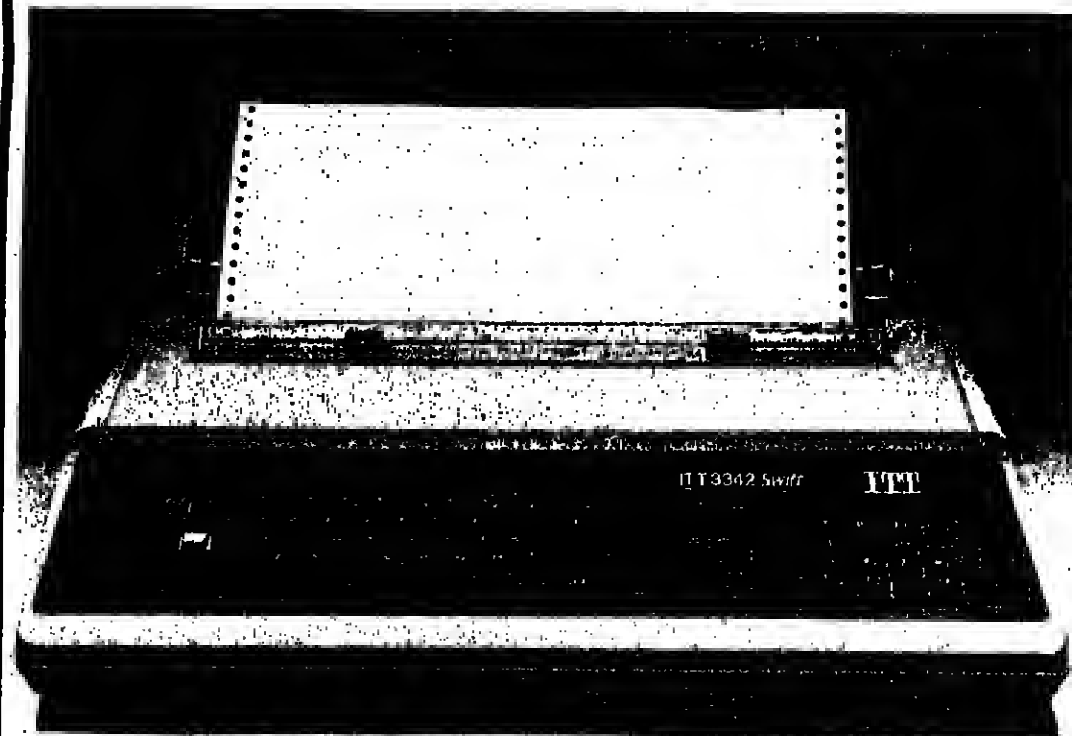
These are just a few of the uses to which Mapper has been put by John Brown personnel since it became available last autumn. There are now over 140 registered users for the facility who have either had files set up by the Mapper co-ordinators or at least are showing considerable interest. A user group has been formed on which all users and the DP department are represented and via which problems and developments can be aired and discussed.

The rapid development of Mapper use in John Brown has shown how eagerly people will accept systems or facilities over which they have a more obvious means of control.

Up to now there was a "them and us" world of DP personnel and users with little cross fertilisation. The barriers are now coming down. Mapper is providing the means by which users can achieve relatively instant success in setting up systems for their own use. But this work must be co-ordinated and this is where DP personnel have an important part to play. When the user has got what he wants DP can help to improve how he does it while at the same time ensuring that the work is not duplicating the work of another.



WILKINSON... Mapper solved some of the John Brown Organisation's problems overnight.



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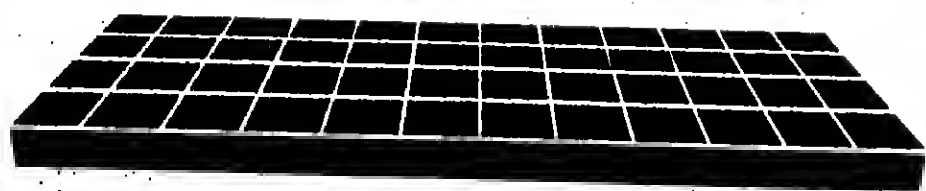
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STC STC Business Systems

Apr 14 1983

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HUNT... Increased growth.

MSA takes \$100 million

MANAGEMENT Science America has become the first independent software company to earn \$100 million in a year. Revenues in 1982 were \$101.2 million, 38% up on the year before, and international operations manager Michael Hunt says that the company is looking to increase the growth rate to 50% this year.

By January 1978 the company was very much involved in the Sultan Voe oil terminal project. John Brown's contribution was the process plant and in order to reduce the number of expensive man hours required on site the concept of modularisation with off-site fabrication was adopted.

The materials for the modules would be distributed from a central warehouse and it was this distribution and the subsequent accounting for materials used which was of particular concern in 1978.

John Brown already operated Cobol-based programs for the control of materials which with some modification could be adapted to meet the immediate requirements. There was still a considerable programming requirement, however, which continued for most of the project and the quantity of data generated resulted in the creation of 15 major databases.

During 1978 QLP (Query Language Processor) became available which allowed the user to interrogate databases by writing his queries in simple language. Project staff were trained to carry out these interrogations which helped to limit the reliance on programs for the day to day routine work, although there was still a requirement for specialist personnel to provide the more complex systems needed to analyse the vast store of data which was being created.

By the summer of 1981 much of the project data was computerised and the accountants now wanted it analysed while the plant operators

wanted the base information required for plant maintenance. The basic philosophy of these requirements had been defined and programming was about to start when Mapper became available.

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Construction of Sultan Voe terminal.

HARB... 17m crane.

UP TO 300 jobs will be created in the UK during the next four years as Digital Equipment Corporation first research and development centre outside the US. Barry Barbe, managing director of DEC UK, said the UK was chosen for the £7 million centre because its software technology was as good as anywhere.

Consumer law

COMPUTING services companies will face new consumer protection laws this July under the new Supply of Goods and Services Act which will extend the powers of the present Sale of Goods Act from products to services. "This could have significant impact because at present disputes revolve largely round the wording of contracts," says Doug Rydons, director-general of the Computing Services Association.

ALTERGO is shaking out its top management as it centralises its operations under a new company, Altergo Information Systems. The aim is to put more emphasis on marketing, and already an American, Leonard Levy, has been appointed as managing director, while two of the previous top men Dick Jones and David Brownlee have gone.

C for CP/M

DIGITAL Research has rewritten its widespread CP/M operating system in the C language to make it more portable. This will bring the Unix operating system for users with machines based on Motorola's 68000 chip such as the Apple Lisa and Hewlett Packard's 9800 series.

Export critics

SCICON managing director Wren Werblow has joined the new critics of the UK's software exports record. Government must take its share of the blame, he said, for paying too much attention to attracting overseas companies to set up in the UK's billion home market, but neglecting our exports, which are currently running at the £50 million.

Microsoft moves

MICRO software supplier Microsoft is shaking up its European operation by splitting Microsoft Europe into three companies based in the UK, France and Germany. The port of European director of marketing held by Chris Gare yesterday accordingly and Gare has been replaced by ex-Commodore and David Fraser in the UK, Bernard Bergmans in Paris, and Joachim Kempin in Munich.

Taxing times

VAT demands forced the Data General specialist software house Computerplan to wind up and resume trading under the title of its subsidiary, Computerplan Software Services.

On target

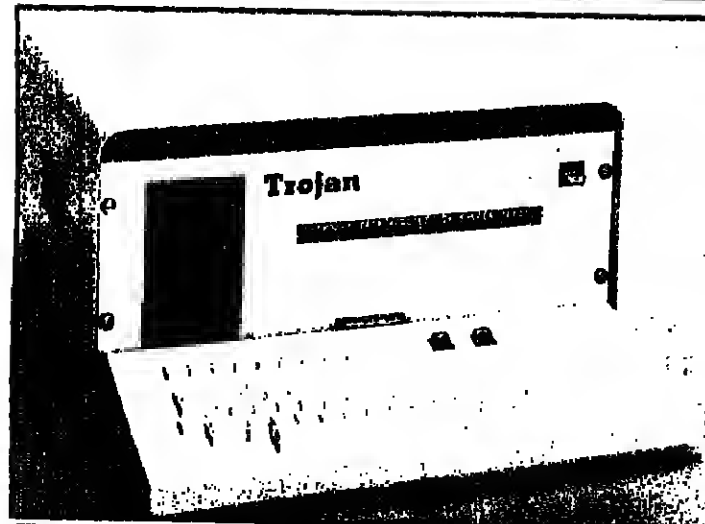
SOFTWARE house Gilliland's database Systems enjoyed a remarkable growth of 57% to over \$34 million in the six months ended October 1982. This was well in line with the annual goal of 50%.

DEC R&D centre

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HARB... 17m crane.



The Trojan data acquisition system.

Measurement system with a wide range of interfaces

MEASUREMENT Systems announces the release of the Trojan microcomputer based Data Acquisition System. Designed for the professional user of microcomputers in measurement and control environments, it offers a low-cost measurement system which provides a wide range of analogue and digital interfaces to a powerful microcomputer.

Trojan is a bus oriented system providing significant expansion in terms of real world interfaces. It is supported by up to 12 different plug in boards including high performance analogue input, digital I/O, analogue output, expansion memory board, RS232, digital I/O, analogue output, expansion memory board, RS232, IBBB etc. Fifteen available user slots permit analogue expansion to up to 80 channels of input in the one enclosure. Local or remote scanning units enable up to 256

channels to be addressed by the system.

The heart of the system is the processor board. This provides a standard 32Kbytes of DRAM, a serial port, a Centronics interface and 20 Kbytes of PROM/ROM for on-board languages for non-volatile application programs.

Trojan offers an option of two high level languages either Basic or Fortran.

Data and program may be stored on the integral 5¼-inch DS/DD disc.

Displays are provided either in the form of an integral 40 character line display or an optional CRT-graphics display providing up to 256 normal and semi graphics characters with a maximum resolution of up to 280x224 pixels.

Measurement Systems (CW), Mill Reef House, 9-14 Cheap Street, Newbury, Berks. Tel: (0635) 45420.

Easing the lot of civil engineers

SIA Computer Services has announced a new labour-saving program for civil engineers.

Bard, a computer aided method of producing reinforced concrete detail drawings, allows civil engineers to produce high quality A3 drawings by means of a plotter, at an economic cost, says SIA.

The reinforcement drawings produced are made up from a number of standard components selected by the user and assembled by the program. Bard produces drawings in accordance with the requirements of CP110:1972 "The Structural Use of Concrete", BS4466 (1981) and "Standard Reinforced Concrete Details", The Concrete Society, 1973.

Developed at the Cement and Concrete Association, Bard recognises the advantages of a reinforced concrete drawing as produced by an experienced draughtsman and has been developed to allow the same freedom of choice available in the manual method. Bard, however, is claimed to save time and effort by allowing interactive input of dimensions, support conditions, reinforcement types and arrangements etc, which are then automatically checked for compliance to standards.

Familiar users may enter data in shorthand, thus saving even more time, and common data items, such as the firm's title block, curtailments, and lap lengths, are stored on standard files to be tailored and used as required. In the case of reinforced concrete columns, up to four different members are shown on the same drawing.

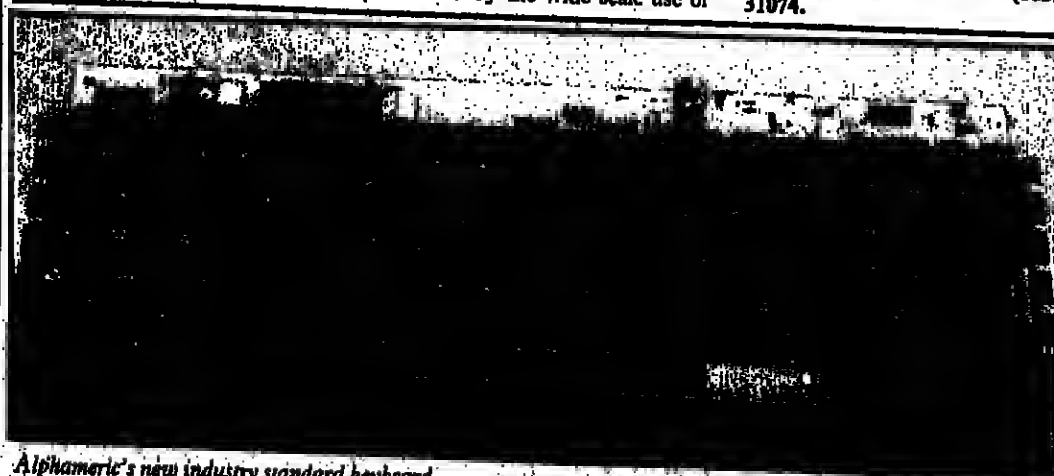
SIA Computer Services (CW), Ebury Gate, 23 Lower Belgrave Street, London SW1W 0NW. Tel: 01-730 4544.

Non-stop printing

NON-STOP printing is the claim made by Trilog for its new TTP range of line printers.

The printers run with two print heads. If one fails printing continues at half speed on one head. A replacement can be fitted by the user. The printers are designed to work eight hours a day, five days a week. The ribbon life is put at 200,000 lines.

Trilog (CW), Unit 1, Nimrod Way, Nimrod Industrial Estate, Reading, Berkshire RG2 9EB. Tel: (0734) 868147.



Alphameric's new industry standard keyboard.

New keyboard from Alphameric

A NEW CRT 80/VT100 compatible keyboard, the AKL 82-189, has been introduced by Alphameric.

This new industry standard keyboard has a basic 83-key layout which can be modified by the addition of up to nine extra keystations.

The additional keystations can be snapped into place and a simple software package takes care of designations, says Alphameric.

Complete flexibility is ensured

Big savings claimed for controllers

THREE new intelligent display controller ICs that interface with a host computer and provide direct drive for vacuum fluorescent displays are now available from Pelco Electronics.

Designated the 10941, 10942, and 10943, these devices can provide 16 segment, 5x12 dot matrix and bar graph control for up to 80 characters.

By integrating display data processing, character decoding, and display drive in the ICs, considerable cost savings can be achieved in displays using ten or more characters, compared to the use of other MOS-bipolar display controller techniques, says Pelco.

The three new devices double the number of products offered in Rockwell's family of intelligent display controllers. The initial family members, 10937, 10938 and 10939 were introduced in the third quarter of 1982 for segmented and 5x7 dot matrix displays and are now in production.

Typical applications for the intelligent display controller family include automotive instrument clusters, interactive terminals, typewriters, telecommunications products, industrial automation, appliances, hand-held computers,

and instrumentation systems.

By providing a simple interface both with the host computer and the associated display, the intelligent controller family offers significant advantages over older approaches that employ TTL devices, says Pelco. Among the claimed benefits of Rockwell's intelligent display controller approach are reduction of operating time required of the host computer, less display overhead electronics, simplified system design, less board space for the display control function, reduced power and cooling, lower overall installed cost, and lower maintenance costs.

For segmented displays, the Rockwell 10941 when used with the 10939, will drive up to 40 characters of a 14 to 18 segment display containing a decimal point and comma tail. It is also capable of bar graph control. The device accepts TTL-level, serial or parallel inputs up to a 1 KHz rate, processes the data, and then supplies direct drive for VF display digits and segments.

Pelco (Electronics) (CW), 26/27 Regency Square, Brighton, East Sussex BN1 2FH. Tel: (0273) 722155.

Low-cost colour video graphics controllers

A RANGE of high definition colour video graphics controllers is launched by Europel Systems.

The Europel video graphics controller is a single PCB which functions as a complete self-contained high definition colour graphics computer system. The controller is available in hardware and software configurations to meet the varying needs of the end user.

In addition to being offered as a complete video controlled subsystem the video circuits are to be made available on standard bus formats.

The Europel system has a single card controller rather than the normal rack system. It is also easier to use at a much lower initial cost, achieved by the wide scale use of

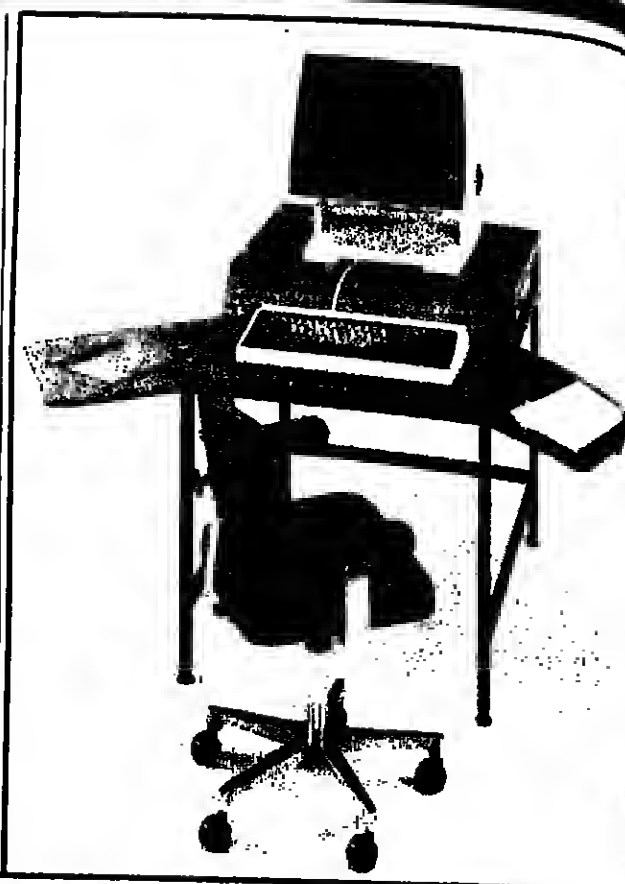
custom integrated circuits.

The new system has been completed by engineers in under two years from its inception. Europel has received an order for 1,000 of these controllers.

There is a "tailor made" range of supported software available for users wishing to implement their own specialised functions.

A wide variety of applications are obtainable with the Europel colour video graphics controller to the following industries: Computer, electrical, control industry, shipping, aircraft, engineering and amusement machine manufacturers.

Europel Systems (CW), Craven House, Craven Road, Newbury, Berks. Tel: (0635) 31074.



Hamilton-Lines' two-tier terminal table with wings attached.

Tables for terminals

TERMINAL work tables which combine a grained wood look with the hard-wearing properties of vinyl have been introduced by Hamilton-Lines.

The tables are available in teak, sapele or white laminated finishes. They have extra worktops which can be attached to either side and

stowed underneath when needed. The tables cost £29.50 VAT.

Hamilton-Lines (CW), Southern Cross Trading Estate, Bognor Regis, West Sussex PO21 9SB. Tel: (0243) 828921.

Keeping down the phone bills

KEEPING phone costs under management like to see them at the lowest possible level - a difficult problem when using automatic outside dialling systems and needs vigilance of a special kind.

Tel-Tag says that its comprehensive management reports, which can be formatted according to need, provide the information which management requires to introduce greater efficiencies.

The latest in the growing Tel-Tag range is the Tel-Tag 400 Series, designed and manufactured by Luton-based Systems Reliability for use with small to medium sized SPC exchanges or by users with conventional electronic/mechanical PABXs who may be considering changing over to SPC.

The Tel-Tag 400 Series are real time systems which identify the originating or called extension numbers, dialled, precise time of call and its duration.

As well as detecting the source of unauthorised calls, the equipment gives a complete breakdown of the time spent on the phone, by length of time taken by switchboards to answer, wait extensions are under- or over-loaded, and the costs and who is originating them.

Tel-Tag's "watchful eye" allows no activity that is unaccounted for, thanks to the advanced technology of the system and the comprehensive programs developed and maintained by Systems Reliability.

Systems Reliability describes its latest system as suitable for small to medium-sized PABX installations starting at about 75 lines up to a maximum of 400.

A hotel management version, the Hotel-Tag 600, keeps a permanent check on all calls from guest rooms and staff extensions in hotels of up to 600 rooms.

Prices for Tel-Tag begin at about £5,500.

Systems Reliability (CW), Marshall House, 24-26 Polstead Road, Luton, Bedfordshire. Tel: 01-450 9131.



Casio's impact printing calculator.

Calculator with impact printer

CASIO HR1 is a new lightweight portable calculator with liquid crystal display and the option of printing on standard paper rolls - full character, impact print, not mosaic or thermal effects.

Overall size is a handy 32x82x160mm, weight 295 grams. Power comes from four AA size manganese batteries giving 4,300 hours continuous operation in display only, or some 9,000 lines of print (20% improvement possible on superior power cells). For astute use, operation from AC mains adaptor is optional.

Calculation abilities are the usual four functions with automatic accumulation; direct access to memory; and multi-function percent.

Casio HR1 compact printing calculator has a recommended retail price of £29.95.

Casio Electronics Co. (CW), Unit 6, 1000 North Circular Road, London NW2 7JD. Tel: 01-450 9131.

PRODUCTS

3D aid for CAD project visualisation

COUNTING House Computer Systems has enhanced its Integrated Technical System (ITS) to offer 3D viewing at the drafting stage of CAD/CAM applications for the more accurate visualisation of projects.

It is often important to provide three dimensional views of a design even when this is not necessary to the main drafting function. The new 3D subsystem provides the facilities necessary for the ITS user to generate three dimensional views from a 2 or 2.5 dimensional drawing.

The resulting drawing can then be projected as any two or three point perspective, or isometric and axonometric views with or without hidden lines. Views can be interactively manipulated on the graphics screen and plotted when the user is satisfied with the result.

Any shape or profile in an existing GDS drawing can be used as the basis of a perspective view.

Coupling House Computer Systems (CW), Farnham House, Farnham St Martin, Bury St Edmunds, Suffolk. Tel: (0284) 60921.



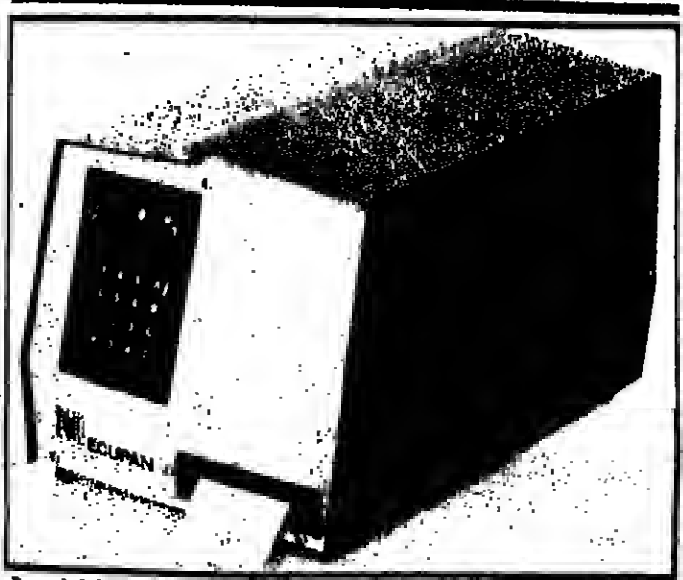
Not just a pretty face... Miss World, Morisela Alvarez Lebron, has been signed up by Epson to advertise its products. Here she is showing a printer sub-assembly.

Setting new standards

A MATRIX printer, claimed to set new standards among such products, has been introduced to the UK by Epson (UK), part of the Japanese manufacturer Seiko.

The new RX80 runs at 100 characters a second. It has two full 96-character ASCII sets.

Epson (CW), Dorland House, 388 High Road, Wembley, Middlesex HA9 6UH. Tel: (01) 900 0466.



Bar code labels printed to order by the Flexiprinter.

Two labels a second

A PORTABLE bar code label printer which could boost the use of bar codes has been introduced to the UK by the Swedish manufacturer Ectypen.

The Flexiprinter is said to be the first bar code label printer to use microprocessor technology. This enables it to print different labels of various sizes on demand, so organisations do not have to order print runs well ahead of their needs.

Several hundred label texts and formats can be stored in the Flexiprinter and called up by entering simple numeric codes. Other information such as product weights or descriptions and company logos can be stored or taken from a separate device if necessary and printed at the same time.

The Flexiprinter has a Zilog Z80 processor and between eight and 48K of memory. It prints at two labels a second.

Ectypen (CW), PO Box 40, Hertford SG13 7HE. Tel: (0992) 552426.

Specialised cleaning materials

HAL Computers has been appointed main agent in the UK for a comprehensive range of computer cleaning products manufactured by Automation Facilities.

The range of new products includes specialised cleaning materials for general external surfaces, tape drives and heads, disc packs, cartridges and drives and VDU screens. These consist of a variety of aerosol sprays, lint-free cotton squares and cloths, spatulas and brushes.

One of the most innovative products is the Floppiescope floppy disc head cleaner. This comprises a special open-ended jacket which enables a fresh cleaning diskette to be used for each cleaning operation, and eliminates the risk of head re-contamination.

HAL Computers (CW), Invisi-ble Road, Farnborough, Hampshire. Tel: (0252) 51715.

Plotting system speeds circuit board design

CALMA has developed a laser plotting system which is claimed to speed the production of computer-designed printed circuit board images by more than 100 times.

The new high resolution device, which is being offered with Calma's Cards II PCB computer-aided design system, generates images at a typical rate of four minutes per plot - between 90 and 120 times faster than conventional photoplotters.

The laser plotter which, according to Calma, removes many of the constraints on speed, accuracy and density normally associated with high-density photoplotting, accepts pre-sensitised media as large as 56cmx71cm, and plots as large as 45.2cmx61.4cm can be exposed.

A special carriage system moves the media to provide accurate exposed images. Precision is within 0.0254mm (0.001 inch) over the entire format.

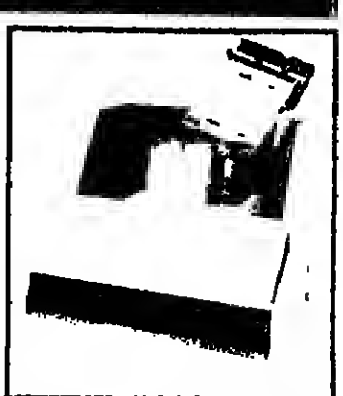
The unit is also equipped with a vacuum platen that securely holds the media. Pneumatic isolation mounts are available to safeguard the optics table from ground vibrations.

Accuracy and precision are also controlled by the laser, which is split into a write and reference beam. As the write beam exposes the film, the reference beam precisely controls the position of the image.

In addition, a computerised scan lens accurately focuses each flash. The system's optical elements contain the necessary micrometer adjustments that align critical components within the required specifications.

Calma says that innovative and exclusive features allow plots to be produced with dense circuitry as small as 75µm.

Calma (CW), Beech House, London Road, Camberley, Surrey. Tel: (0276) 682021.



The Durst silent printer terminal.

Durst adds to range

LESS than six months after entering the printer terminal acoustic covers market, Durst (UK) has turned its attention to silencing sheet-feed terminals.

The company is in add to its existing range of four acoustic covers a new model designed specifically for sheet-feed printers. It is constructed in aluminium with hinged front covers in smoked acrylic.

Durst (CW), Felsted Road, Longmead Industrial Estate, Epsom, Surrey, KT19 9AR. Telephone: Epsom 26262.

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Do you have any new, redundant or second-hand computer equipment, computer-related supplies, services or property that you would like to sell?

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IBM CENTRAL PROCESSING UNIT, DATA STATIONS AND ANGLARY EQUIPMENT, HONEYWELL VDU, COMPUTERISED CASH REGISTERS, ELECTRIC TYPEWRITERS, OFFICE FURNITURE AND CATERING EQUIPMENT

Including, briefly: 2 IBM System 34 central processing units (E36 and D24) with 9211 printers and 5251 display stations; 2 IBM System 32 self-contained central processing units; IBM System 3 Model 12 5412 618 central processing unit with 5476 printer, 5424 multi-function card unit and 3340 disc drive; IBM magnetic card printer; Dual and single data stations and data modules; 12 Honeywell VDUs and keyboards; NCR 7500 computer; ICL System 908 computerised cash registers, Burroughs 16000 accounting machines; 14 electric and 12 manual typewriters.

Photocopies, plan copier, duplicators, electric adding and listing machines, electronic cash registers, large quantity of desks, filing cabinets and miscellaneous office furniture and equipment (600 lots in all).

On view Wednesday, March 16, 1983, between 10am and 3pm and morning of sale between 10am and 11am.
 Catalogues available: Auctioneers' Offices, 75 Wellington Road South, Stockport SK1 5BP. Tel: 061-477 4372 or 061-430 1137.

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NEW SOUTH WALES GOVERNMENT DEPARTMENT OF CORRECTIVE SERVICES AUSTRALIA Prisoner Records Computer Package

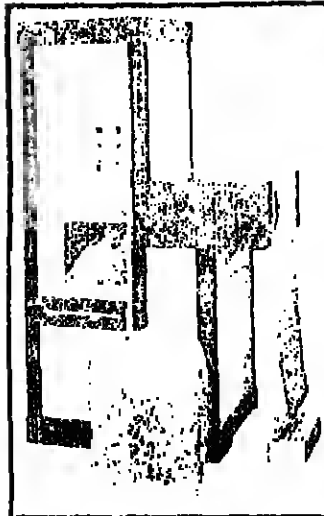
Proposals are requested for a package covering a prisoner records and accommodation system for institutions operated by the Department of Corrective Services. A user requirement statement has been prepared in respect of the Department's needs and this statement could be amended to facilitate appropriate packages. (A copy of this statement is available upon request.) Where necessary, Departmental organisational structure could also be modified to accommodate a successful proposal. The proposal should cover a complete software package and include a recommendation for suitable hardware. It is essential that the proposals be based on existing systems currently operational either within a police environment or a similar environment, which could be readily modified to meet the Department's needs. Interested organisations are invited to discuss the matter further with the Department's Information Services Branch and appointments can be made with Mr E Manning or Mr R Cooke on telephone (Australia) (02) 217 8125. Proposals should be clearly marked "Proposal for Computerised Prisoner Records and Accommodation System", and be delivered by 26th March, 1983.

New South Wales Department of Corrective Services, Information Services Branch, Roden Cutler House, 24 Campbell Street, SYDNEY, N.S.W. 2000, AUSTRALIA. OR: G.P.O. Box 31, SYDNEY, N.S.W. 2001. Telex: N.S.W. PREM, A21288. Attention: N.S.W. Dept. Corrective Services. If you require further information in regard to this matter please contact: Mr L. Gardner, Administrative Officer, Management Services, on 217 8316 or Mr E. Manning, Information Services Branch, on 217 8125.

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The Destroyit Shred'n Baler.

Shredding at 71ft a minute

COMPUTER printouts can create a paper handling problem and take up considerable space. For security's sake, this paper should be shredded prior to disposal, but storage space for this purpose can be excessive, especially for banks, and other businesses and institutions which need to dispose of vast quantities of confidential papers.

Now these offices can reduce their space reserved for waste, and at the same time safely destroy waste by shredding with the new Destroyit Shred'n Baler 6104 being introduced by Electric Wastebasket Corp. This new office machine, designed for fast, safe disposal of office papers (including computer printouts), shreds, compacts, and bales automatically.

The Destroyit Shred'n Baler is simple to operate and takes no special skill. In addition, it has claimed 75% of the space required for waste storage and providing greater document security, baling paper waste may lower insurance costs because of reduced fire hazards, and better, safer working conditions.

Additionally, pilferage is reduced because "good" merchandise can no longer be pilked with loose waste leaving the building. Total savings can be considerable.

The Destroyit Shred'n Baler 6104 shreds continuous form at the speed of 71 feet per minute or 30 sheets per pass through its 16in throat. When the compacting chamber is full, a monitoring switch automatically shuts off the shredder and activates the hydraulic plunger which compacts the waste with four tons of pressure.

Electric Wastebasket Corp, (CW), 145 West 45th Street, New York, 10036.

Alternative for IBM 3270 terminal users

IBM users now have an alternative to IBM's 3270 terminal from the leading UK telecommunications group, Cable and Wireless. The company's trading subsidiary, Cable and Wireless UK Services, has launched the 5270 terminal made by a Canadian firm, Comterm.

The 5270 has the same functions as the 3270 but offers "considerable" enhancements. It consists of a controller, screens and printers.

The controller can support 32 screens and printers in any combination. The terminals are linked through a baseband coaxial cable using a daisy-chain principle. Cable and Wireless points out that this offers considerable savings in wiring and installation costs and makes for a tidier job. Extra terminals are simply connected to the nearest display or printer.

Communications speeds of up to 19,200 bits a second are possible under both IBM's BSC and SNA SDLC protocols.

Colour and black-and-white displays can be mixed with a variety of printers without changes to the controller. Operating software is stored on floppy discs

which can be changed easily by the user to suit different needs.

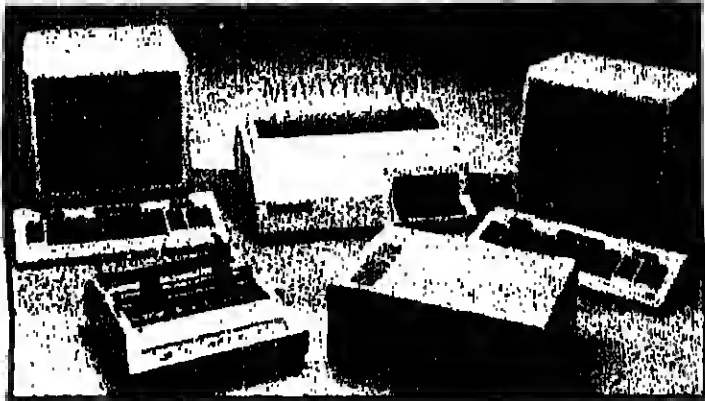
The terminals are available in a variety of sizes and with a choice of keyboard layouts. All screens support the APL character set. Four- and seven-colour screens are available.

The printers range in speed from 150 characters a second to 600 lines a minute. They can be attached to the back of the screens in save wiring. The controller can treat a printer attached in this way as an independent device.

Cable and Wireless UK Services is selling, installing and supporting the 5270s from its seven regional offices in the UK.

Market development manager Jim Ure said, "As we are not a manufacturer we can choose the best products. The Comterm 5270's ability to meet current user needs, plus its flexibility for future enhancement, ensures we can offer users a no-risk option irrespective of the direction their data processing takes."

Cable and Wireless UK Services (CW), 82-83 Blackfriars Road, London SE1 8HQ. Tel: (01) 633 9577.



A variety of screen and printer alternatives from Cable and Wireless for IBM 3270 users.

Tiny terminal for £700

THE General Systems Division of Gec UK has launched the low-cost 401 Informer terminal. In line with the produce range's philosophy of "small is beautiful", the new 401 weighs only 14 lbs, yet offers a substantial cost-saving over competitors' specialist terminals, says Gec. Prices start at £700.

Gec has adopted this competitive pricing policy on the 401 to

increase its market share for specialist terminal products.

The base of the Informer 401 measures 13 inches x 14 inches, with a screen size of nine inches that allows for a displayable character reading of 128 with an addressable/readable cursor.

Gec UK (CW), Gillingham House, 38-44 Gillingham Street, London SW1 1HV. Tel: 01-828 5235.



The Olympia ESW 3000 RO printer.

Printer links to 'any micro'

OLYMPIA International has launched a low-cost, high speed daisywheel printer, the ESW 3000 RO.

Available at just over £1,100, it will interface with almost every microcomputer and word processor on sale, says Olympia.

The intelligent ESW 3000 RO prints bi-directionally at up to 30

chps, with 10, 12, 15 and proportional pitch selections. Its completely new print unit, ribbons and daisywheels have been developed to give correspondence quality reproduction at maximum speeds.

Interfaces with Olympia's ESW range are currently available from the company for most other manufacturers' equipment. The range

includes Centronics, RS 232, 20mA current loop, 18C485, Commodore IEEE and Qbus, Diablo 13-bit parallel.

A range of paper-handling devices are also available. Olympia Business Machines (CW), Olympia House, 199/200 Old Marylebone Road, London NW1 5QS. Tel: 01-262 6788.

Operator strain reduced

THE Televideo 970 intelligent terminal is now available in the UK from microcomputer and terminal distributor Midlecron. The 970 is fully compatible with Digital Equipment's VT100 yet costs just under £900. It is claimed to have been designed specifically to cut operator strain.

The terminal has X-On/X-Off or DTR communications protocols, with standard RS232C printer and computer interfaces, plus an RS422 or 20-milliamp current loop option. Full VT100 editing and other features are standard. The screen can display 24 lines of 80 or 132 characters.

The display is wider than that of the VT100 at 14 inches. It has a phosphor screen which can be tilted.

Midlecron (CW), Nottingham Road, Belper, Derby. Tel: (077 382) 6811.

Anti-tilt and 'slam shut' cabinets

SHANNON Datacor has updated its MA range of microfilm filing cabinets, introducing the unique combination of an anti-tilt device and "slam shut" drawers, for safety and convenience. Two and five drawer versions of the cabinets have also been introduced to the range.

Available with two, five, seven or 10 drawers, the lockable steel cabinets are finished to anti-brown and parchment. The drawers are wider than those in standard microfilm filing cabinets, also produced by Shannon Datacor, to allow more convenient storage of aperture cards and log cassettes, including video cassettes, as well as microfiche and magnetic cards.

Shannon (CW), 36 Croydon Road, Beckenham, Kent BR3 4BH. Telephones 01-650 4818.

MA range of cabinets updated.

MPI opts for 3in drive

MPI EUROPE, subsidiary of Micro Peripherals Inc, has released details of its latest OEM floppy disc product. Following in the tradition of the Stimline which at only 2in high is currently the world's smallest 8in floppy disc drive, and the more recently announced half-height 5 1/4 in drive, the company has now introduced a 3in drive which adopts the microfloppy standard originally proposed by Hitachi, Maxwell and Matsushita.

MPI's chairman and chief executive officer, Ralph Gabai, said on making the announcement, "After carefully researching what our customers require of a microfloppy, we concluded that the 3in design was the optimum choice."

"Our main criterion was to supply a drive which would utilise an already available media rather than confuse the issue by attempting to set a new standard without volume availability of a corresponding media. A further design criterion was that the new drive must have an interface which was fully compatible with standard 5 1/4 in drives."

Gabai also drew attention to the fact that the 3in design satisfies a number of other OEM customer needs including small physical size, utilisation of a hard-cased media and a price less than that of a similar capacity half-height 5 1/4 in floppy disc drive.

Commenting further on the new drive, Chris Scottford, MPI Europe's sales manager, pointed out its suitability for personal computer and standalone word processor applications. "The 3in microfloppy diskette can fit easily into the pocket and its rigid casing makes it well able to withstand the rigours of everyday environments such as offices, factories and schools."

Other advantages of the 3in microfloppy as a media are its self-cleaning capabilities and the automatic shutter which protects the recording by opening only when the disc has been safely inserted into the drive. Microfloppy diskettes are currently available from Maxwell and TDK with other media manufacturers expected to introduce them shortly.

MPI's 3in drive, the Model

301F, offers the OEM a performance in many ways equivalent to that of its physically larger counterparts. The disc can be "flipped" to allow recording on both sides. There are 40 tracks per side packed at 100 TPI and recording can be single or double density. These parameters translate into a range of capacities from 120 Kbytes to 500 Kbytes per microfloppy. Rotational speed is 300 rpm which gives a maximum data transfer rate of 250 Kbit per second.

MPI has incorporated its patented stepper-drive head positioner technique resulting in a track to track access time of only 3ms; average access time is 55ms and latency is 100ms.

The Model 301F's front panel measures 3.5 in wide x 1.5 in high and the unit is only 3in deep. A one-step, push-button door facilitates easy insertion and ejection of the disc and serves to protect the drive mechanism from the ingress of dust.

MPI Europe (CW), 11A Reading Road, Pangbourne, Berks RG8 7LR. Tel: (0757) 4711.

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A City Bank are offering a good salary and the usual comprehensive banking benefits package to an Analyst Programmer with two years' banking and banking systems experience. Your background should include involvement with DEC PDP, VAX and a thorough knowledge of BASIC +2 or AIMS with COBOL being advantageous. Within this environment candidates can expect their talents to be recognised and to progress quickly through a definite career structure. Contact the LONDON office.

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An international software house require three Support Programmers or Analyst Programmers to help in exciting new developments. Your two years' experience on PDP or VAX with a knowledge of operating systems will be invaluable. Exposure to a complex environment would be useful and your ability to react intelligently and effectively to situations and problems will also be of help. Some travel is envisaged to implement systems and to assist users. These positions offer the successful candidate a good salary, an interesting and rewarding environment and the kind of experience that could be invaluable. Ring our LONDON office today for an immediate interview.

W. LONDON SENIOR SYSTEMS ANALYST

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We have been advised recently of a number of requirements for SYSTEMS ANALYSTS and SENIOR SYSTEMS ANALYSTS in or around WEST LONDON. The people sought will have had solid experience and be used to involvement in projects from feasibility to implementation. An exposure to on-line, financially-based systems in an IBM environment would be a distinct advantage in most cases. To discuss prospects contact our LONDON office.

ESSEX ANALYST PROGRAMMERS

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An outstanding opportunity has arisen with an Essex-based financial services group. An enthusiastic IBM COBOL Analyst Programmer is needed to provide support for a range of interesting applications with simple scope for user contact and systems analysis. If your experience has been gained in a DOS/VSE CICS environment this would be an advantage. Contact our LONDON office today.

W. LONDON TEAM LEADER

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Our clients are an internationally known member of the entertainment industry. A PROGRAMMING TEAM LEADER is required with the experience and self-motivation to take the responsibility of getting the best out of others in the team. A considerable amount of DEVELOPMENT work is planned for the twin IBM 4341 (DOS/VSE, CICS) installation and ambitious Senior Programmers looking for real progress should contact our LONDON office now for an early interview.

MANCHESTER SENIOR ANALYST

c £11,000 NEG

A large manufacturing concern in the Greater Manchester area require a Senior Analyst or SENIOR PROGRAMMER with design experience. A background which includes development of on-line systems and MAAPICS would be a considerable advantage. A negotiable salary is complemented by the normal large company benefits - phone our BIRMINGHAM office soon.

CITY PROGRAMMER ANALYST

c £10,000

A thriving subsidiary of one of the world's largest companies in the petrochemicals industry needs an additional member for its small development team. RPG II experience gained in an IBM GSD installation is required and every opportunity will be provided for the successful candidate to develop his or her ANALYSIS experience. A really excellent range of benefits is offered in addition to the basic salary. Speak to one of our LONDON-based consultants today.

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One of the leading systems software companies with a user base of over 5,000 sites in Europe require a SYSTEMS SOFTWARE SUPPORT ENGINEER, MVS or VSI experience with ASSEMBLER gained as a systems programmer or technical support programmer would be the preferred background and a genuine opportunity to broaden horizons is offered. The competitive salary is supplemented by other large-company benefits. Call our LONDON office for further details.

MIDLANDS PROGRAMMER ANALYST

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Our clients are a thriving software house in the Midlands. A current requirement is for recent ICL ME 29 and CIS COBOL experience to work on some interesting applications. This company could also use people who have had exposure to the DRS or PHILIPS range of equipment and will pay well for the right people - our BIRMINGHAM office have further details.

CITY COBOL PROGRAMMERS

£10,000

A well-known firm in the City require three competent Cobol Programmers with two years' on-line experience preferably on ICL or TANOEM. Candidates should have some experience of stock or bond dealings but the company will also consider those with a financial applications background and Tandem training will be given. Our LONDON office will provide further details.

CITY BASIC+, +2

ENEG

An acknowledged leader in the field of providing DF services to commodity brokers is now willing to take on a programmer. You will need to have at least one year's commercial experience on PDP 11 or VAX. The successful candidate will need to show an educated, mature and responsible attitude in keeping with our client's professional environment. Excellent prospects of career development - for more information call our LONDON number.

MIDLANDS/NORTH ANALYST PROGRAMMER

to £12,000

RPG II expertise is very much in demand. We have a number of openings for Systems and Programming staff with, in particular, experience of the IBM GSD range. The opportunity to develop systems with first-time users is a very much a feature of a number of these positions and our BIRMINGHAM office will be delighted to discuss opportunities immediately.

HERTS BASIC +2, RSTS/E

c £10,500

A national retailer requires an Analyst Programmer with three years' experience on OEC PDP 11 under RSTS/E. Some exposure to COBOL would be useful as would a knowledge of retail and commercial applications. Our client is also seeking two further PROGRAMMERS with a knowledge of BASIC +2 and RSTS/E. All three posts offer excellent opportunities to the right candidates. Call the LONDON office.

BUCKS SENIOR PROGRAMMERS

£ V. GOOD

A well-known car manufacturer is seeking to fill the above vacancy. The work consists mainly of new developments using ICL 2980 using COBOL under EXCES and VMEB. This could be the right move for talented programmers who are perhaps already shouldering responsibility and are now looking for exciting career opportunities. Both the package and the prospects are inviting and the perks include discount on the Company's products. Contact our LONDON office.

PROGRAMMERS

c £9,000

A leading software house and consultancy need bright young Programmers with MINI experience. A commercial or manufacturing background which includes BASIC end/or COBOL on HEWLETT-PACKARD, DEC/PDP, CMC, NCR or similar machines would be ideal for a company where training and career development are very much a feature. Call the BIRMINGHAM number below.

CITY PROJECT MANAGERS

c £14,000

A rapidly expanding systems consultancy currently using PDP and VAX with applications mainly in the banking and finance sectors need to fill two prestige positions. Candidates will have had a solid grounding in banking with a good technical background in comma and banking software. The candidate will have the ability to communicate effectively with users and identify their problems together with the skill to successfully implement systems from start to finish. To learn more about these superb prospects contact our LONDON office.

CENTRAL LONDON BASIC+, +2

£8 to £10,000

If you enjoy user contact and the satisfaction of taking projects to completion then an opportunity exists for self-motivated graduate Analyst Programmers within a software house/service bureau. The work is interesting within the field of general commercial applications, and your ability would quickly be recognised and translated into a fulfilling career. There is plenty of scope to improve all aspects of your skills within this company. Call the LONDON number.

MIDLANDS ANALYSTS

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Sound Systems Analysts with a background including the design and implementation of financial or manufacturing systems are required by this major British company. Commitment to the continued development of sophisticated systems has led to a number of excellent openings which should be discussed with our BIRMINGHAM office today.

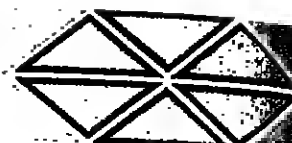


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The project calls for the appointment of several technicians with varying degrees of real time programming expertise, but it is unlikely that candidates with less than two years experience will be considered. Ideally, you should possess knowledge of UNIX and have gained programming skill in the use of 'C' language, otherwise formal training will be given. For the more senior appointments, overall systems experience is required.

These positions offer significant opportunity for the advancement of technical experience, but more importantly, represent long term security within an Organisation committed to excellence with a vast range of highly marketable products.

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Netherlands: Pkg to £18K

The Defence Group of a multi-national corporation urgently requires a number of Senior Programmers/Team Leaders, to join the Applications and Systems Teams currently employed at its Development Department. Experience should have been gained in a real-time systems environment, with a minimum of 7-10 years. Specific applications areas of interest are likely to include the nature of Command and Control, Process Control, Data Communications or Weapons Guidance Systems. At the Systems level, suitable applicants should be fluent in Senior Programmers/Team Leaders, to join the Applications and Systems Teams currently employed at its Development Department. Experience should have been gained in a real-time systems environment, with a minimum of 7-10 years. Specific applications areas of interest are likely to include the nature of Command and Control, Process Control, Data Communications or Weapons Guidance Systems. 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IBM Database Specialists

Our Client, a large multi national Group of Companies, is currently investing heavily in large scale IBM mainframes which will replace the bulk of its existing computer hardware.

An integral part of this hardware implementation programme will be the construction of a corporate data model incorporating the setting up of a large Data Dictionary.

In order to complete this process as quickly as possible and thereafter to further expand upon database activities within the Group, our Client wishes to meet with experienced Database Designers and Database Analysts with in-depth experience of the implementation and further development of databases on large IBM configurations.

Attractive five figure salaries are available together with an additional range of benefits which include a company car plan, staff discounts on Company products, a 37 hour working week with 25 days annual holiday, an excellent contributory pension/life assurance scheme, subsidised staff restaurants, active and well equipped sports and social facilities, 24 hour accident insurance, staff incentive scheme and weekend disturbance allowance. Full relocation assistance is available where required.

If you have suitable experience for these positions and wish to find out more, contact **Ian Payne** at the SCR Birmingham office on **021-236 3781** (24 hour answering service) or at home on **0827 58002** (Evenings until 9.00 p.m. and Weekends) alternatively, please forward a detailed CV to him at the Birmingham address.

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COBOL Programmers

£8,000-£12,000

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Previous involvement in these areas would be a great advantage, though not essential.

Successful applicants will join a highly skilled team of D.P. professionals, engaged in the servicing of our Client's Northern European Division. A certain amount of overseas travel may be involved when new systems are implemented, possibly taking in short trips to various European locations. Our Client also has an extensive network of minicomputers throughout Northern Europe and applicants with mini experience could enjoy additional involvement in this area.

Our Client is quick to identify potential and offers superb prospects to ambitious, career-minded individuals who are committed to advancement and who maintain a business like approach to their future.

Apart from providing superb career opportunities, our Client offers an attractive range of employee benefits which include profit sharing, private patients plan, subsidised staff restaurant and full relocation expenses where required. Our Client is based in modern premises situated in Bedfordshire, surrounded by pleasant countryside offering a range of amenities and a combination of both mature and new housing at reasonable prices.

Take a positive step forward in your career and contact **Ian Payne** for further details of these excellent opportunities. Call him at the office on **021-236 3781** (24 hour answering service) or at home on **0827 58002** (Evenings and Weekends until 9.00 pm).

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DALROTH

Our client, world leaders in Data Management/Dictionary-driven software for IBM OS/VS and OOS/VS environments, with a network of international distributors and overseas offices is enhancing their Product Training Department.

The position is permanently based at their London headquarters and offers a unique opportunity to join a growing international company at the planning phase of a number of new developments and some limited international travel for user conference/presentations, etc.

COURSE DESIGNERS

£8,000-£11,000

A training course designer is required to design and develop modular packaged training courses for the complete range of the company's software products. Duties will also include training the instructors (with opportunities to do so overseas) who will subsequently be responsible for the course presentations.

The ideal applicant will already have experience in Audio/Visual techniques and/or in Computer-based Training. A range of certain A.V. equipment is already installed and plans are in place to expand the role of A.V. techniques in both the training and sales cycle.

A DP background with appreciation of some of the following:

IBM mainframe, database, data dictionary, non-procedural end/or high-level languages is desirable though not essential as training can be provided.

For further details please contact **Jenny Dalrymple-Hay** or **Ian Murray West** (day/8 a.m. to 10 p.m.) 01-493 2947 or weekends respectively **Baobabfield (04846) 4879**, **Milton Keynes (0908) 534116**, quoting ref. 8855.

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. . . in the North of England and Scotland who are available now or in the near future are invited to contact me, **Peter Moore**, to discuss a variety of interesting contract assignments. Our current requirements include project leaders, analysts and programmers with:

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QSD OPERATORS TO SUPERVISOR LEVEL LONDON to £8,500
Our client is expanding its System 34-38 Operations, and urgently requires experienced Operators to Supervisor level to run a two-shift system.

RP/23 SPECIALISTS TO CONSULTANT LEVEL LONDON to £15,000
A number of our clients situated in London, Midlands, and Yorkshire, need Programmers and Analysts with two years' RP/23 and RP/23 experience. A wide variety of commercial systems include International Banking where opportunities exist for leading on RP/23. Ref: C585

ANALYST/PROGRAMMERS LONDON to £14,000
Leading financial organisation requires two RP/23 professionals with banking/commercial experience. Opportunities exist for leading on COBOL/CICS on IBM CDS equipment. Usual banking perks. Ref: C586

SYSTEMS ANALYST LONDON to £13,000 + benefits
This expanding international organisation is seeking someone to act as deputy to the D.P. Manager in a busy IBM System/34 and 38 site. The successful applicant will have sound commercial design experience, plus ability at communicating with Users at all levels. Ref: C587

RP/23/ANALYST/PROGRAMMERS SUSSEX/HERTS to £11,000
Two leading manufacturing organisations require someone with a minimum of two years' RP/23 and/or RP/23 experience. This position would not require someone to be trained in RP/23, where appropriate. Ref: C588

ANALYST/PROGRAMMERS SURREY to £11,000
Leading manufacturing company needs two Analysts/Programmers with at least six months' RP/23 experience to develop commercial applications in a busy System/38 environment. Excellent career progression. Ref: A676

RP/23 and RP/23 PROGRAMMERS LONDON/MIDOX. to £11,000
Our client, dealing in international Banking and Finance business needs a number of RP/23 and RP/23 Programmers to work with its substantially increased business. Excellent prospects include opportunity to train in RP/23. Ref: C589

D.P. CO-ORDINATOR BIRMS to £10,000
This manufacturing company needs a D.P. professional, with experience in RP/23 and implementation of one major project, to interface at all levels of line management on new applications development. The company would consider a Senior Programme with the right personal attributes. Ref: D887

TRAIN IN RP/23 KENT to £10,000
Leading insurance company needs a Programmer with RP/23 experience. Full training in RP/23 will be given on their new System 38 site. A well-structured career path and excellent monetary benefits apply. Ref: D888

The above vacancies are only a token selection taken from our current files, and we are always pleased to hear from computer professionals wishing to further their career objectives.

BUICK COMPUTER SERVICES
RECRUITMENT DIVISION
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THE WORLD LEADER IN COLOUR GRAPHICS NEEDS ANOTHER SERVICE ENGINEER TO GROW WITH THEM.

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Our products range from low-cost, high-resolution, colour graphics terminals to high-performance, raster-scan, minicomputer-driven display systems. I need someone who, after training on the products, can become fully operational quickly. Previous raster-scan and/or minicomputer servicing experience (preferably DEC) is vital. Colour graphics experience would obviously be an advantage.

The chosen candidate will be based in our Ruislip offices. Chances for promotion start as soon as you enter the door in a company that is expanding as fast as Ramtek.

Probably you will be between 25 and 30 years old but I am more interested in just finding the right person.

It won't be an easy life but, if that is not a problem, please write to me briefly saying why it would be a good idea for you to join us. If you would like more information, feel free to call me on Ruislip (08956) 76211, Peter Stull (UK Sales Manager).

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Ramtek

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This issue is perfect for recruitment advertisers - the editorial environment is right, the target audience is receptive, and as Computer Weekly has a total circulation of over 100,000 copies every week, advertisers can be sure their advertisements will be read.

To coincide with Compec Wales '83 the March 17 issue of Computer Weekly will contain a special recruitment feature covering the computer job market in Wales and the South West of England. Topics covered will be relevant and written by industry experts and staff writers who will report on the current job scene for skilled computer people in the important and expanding area. This issue will be distributed in the normal way to all Computer Weekly readers throughout the U.K., and will also be available to visitors from the Computer Weekly stand at Compec Wales.

To reserve space in this special feature, phone (01) 961 8998 today. Copy deadline is Monday, March 14.

Quadrant House, The Quadrant, Sutton, Surrey SM2 6AS

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PL/1 IMS DB/DC
IMS
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8100 DPPX DPCX
ADABAS NATURAL COBOL
CICS TOTAL COBOL/ASSEMBLER

Analyst Prog
Analyst Prog
Progs
Progs
Systems Prog
Systems Prog
Progs
Systems Prog
Progs
Progs

DEC ASSIGNMENTS

PDP 11 RSTSE Basic
PDP 11 UNIX PASCAL ASSEMBLER
VAX VMS COBOL
VAX CORAL
PDP 11/44 RSX 11 CORAL

All levels
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Progs
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All levels

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ME 29 IDMS

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HERTS
£14k + Car
A very successful manufacturer requires well-qualified software specialists with Assembler experience to join their Technical Support Group. You should be capable of developing benchmark tests and improving performance by detailed tuning of these systems. Sizing and computer selection are other important requirements. REF: CW10/2

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S. LONDON
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021-236 3761

NORTH
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061-833 0427

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They currently have requirements for MVS Systems Programmers with a minimum of two years' practical experience in some of the following: System Generation; SMP; ASSEMBLER; Machinecode; Storage Dumps; VS1, CICS, and/or VM experience would be desirable. The ability to understand technical problems and be able to communicate their solution is of prime consideration.

You will be providing full-time support to an impressive list of major IBM installations. These positions are based in our Central London offices, where a dedicated team are exclusively engaged in the spontaneous rectification of problems associated with the complexities of the MVS operating system, and including IBM and other proprietary software program products. You may also aid in the implementation of Security in our clients' environments. Consequently these consultancy posts will afford the chosen individuals significant exposure to every conceivable software package and tool in use within the IBM mainframe environment, and thus allow the benefit of continued technical advancement.

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For further information or to arrange an initial interview, please contact **Ian Goldsmith** on 01-935 0671 during office hours (including 24 hour answering service), or 01-689 6367 most evenings and weekends, alternatively submit your Curriculum Vitae to the London address below.

- ★ **Problem management for major Client installations.**
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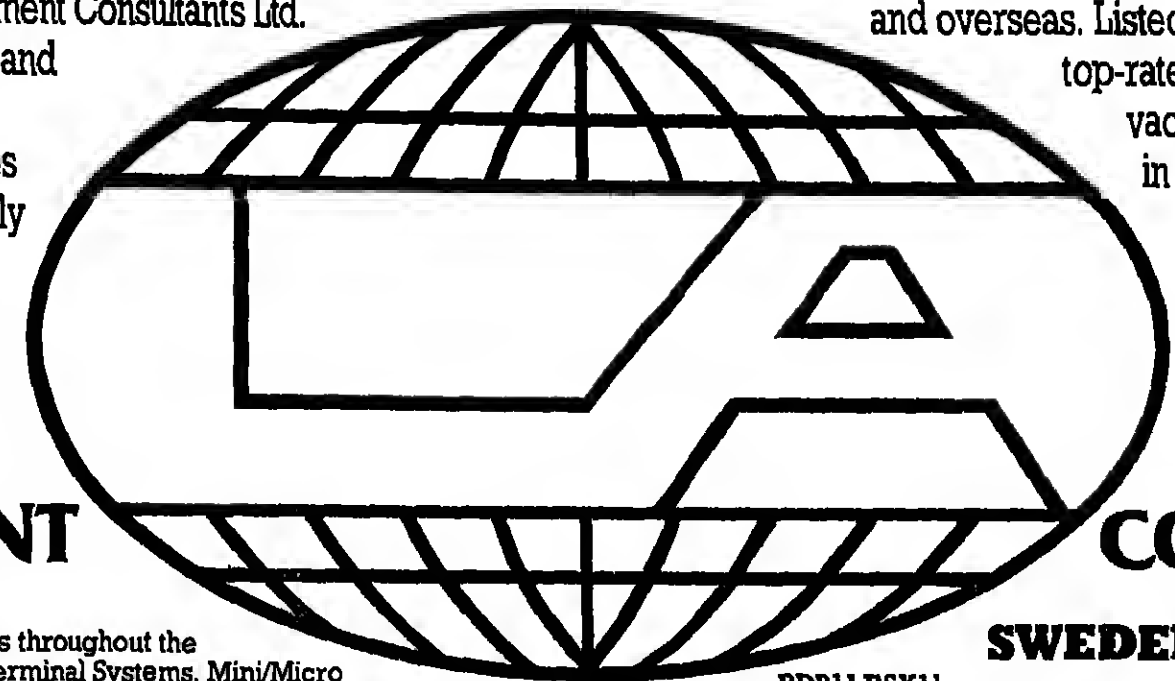
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Associated with companies on 3 continents, we urgently require ambitious professionals for vacancies in this country



and overseas. Listed below are a selection of top-rate permanent and contract vacancies for leading clients in the UK and overseas. For the cost of a phone call, you could have a rewarding new career.

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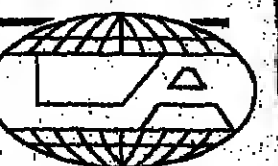
IBM COBOL/CICS Programmers

For further information on any of the above vacancies please ring or send C.V. to address below.



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L.A. International

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Company benefits include pension scheme and BUPA.

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Do you fit this profile?

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c. £18-20K + CAR

You must have

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Additionally we would like you to

- * have a timesharing background
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- * be able to negotiate with senior management

Additionally we would like you to

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You must

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SENIOR PRODUCT SUPPORT EXECUTIVE

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(Systems Integration)

An individual of Team Leader status is required in this key role to focus on the identification of product opportunities, market requirements and potential market size.

Additional tasks will involve close liaison with the development and sales teams in the introduction of new products and the supervision of a small team of specialist product support staff.

Background experience should include a detailed knowledge of Office Automation with a strong communications bias, possibly in a consultancy role.

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A sound basis in programming in such an environment is required and experience in link protocols such as X25, HDLC, etc. would be an advantage. A background in Prime hardware is also desirable, but not essential.

PRODUCT SUPPORT EXECUTIVES

c. £10-£12K

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Analyst/Programmers are required with business analysis experience to undertake the analysis, design, programming and implementation of database applications within our wide and varied existing account base.

Individuals should ideally have a minimum of 2 years experience in a software house or timesharing environment, additionally knowledge of Fortran and Prime hardware would be an advantage.

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01-403 6777

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PRIME JNR. PROGRAMMER £7,000

Company situated in Central London is looking to recruit a Junior Programmer with 12-18 months' experience, preferably gained within a Prime background. Candidates should ideally possess a working knowledge of Fortran programming techniques, however training is possible where necessary. Perks include a very pleasant working environment and subsidised restaurant.

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Progressive company based in N. London requires a Senior Programmer with a minimum of four years' experience. Candidates should be familiar with MTS on-line programming techniques together with a sound appreciation of DME GIL Cobol programming. Small project leadership is desirable, however not essential, as team work is of the utmost importance in this friendly environment. Perks are varied and includes five weeks' holidays and company season ticket loan.

ICL ANALYST/PROGS £9,500

This installation based on the stockbroker belt is looking to enhance its Systems and Programming capability by recruiting VME Programmers with 18 months' experience to Analyst/Programmers with four years' commercial experience. Applicants should possess either an understanding of IDMS/TPMS for the programming positions or a minimum of nine months' systems experience for the Analyst/Programmer position. Career prospects are excellent and include potential project leadership for the right applicants.

IBM ANALYST/PROGRAMMER DOS/VSE

£10,000

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IBM PROGRAMMERS System 34

£7,000+ Benefits

Banking organisation situated in C. London is seeking to recruit Programmers with 18 months' RPG/III experience. Particular interest will be taken with applicants possessing banking or financial experience, although other commercial background will be considered. Perks are excellent and include a very generous mortgage facility and personal loans.

HONEYWELL L 64 PROGRAMMERS

£7-£11,000

Two installations based at both extremes of Greater London seek Programmers with a commercial background, varying from six months' to four years' Honeywell Cobol programming experience. Knowledge of TDS on-line programming techniques will be an advantage for the senior positions. A general appreciation of Cobol is desired for the junior positions. Career progression through to Analysts is assured by both companies dependent on aptitude and desirability.

HONEYWELL L66 PROGRAMMERS

to £11,000

Expanding commercial organisation based in London is seeking Programmers with a minimum of 18 months' Honeywell Cobol experience. Applicants possessing knowledge of either IDS I/II database systems and/or TDS/DMV TP systems would be of particular interest, however, other Honeywell experience will be considered. Perks are varied and include company product discount.

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City Base

£25k + Car

Our client, the European Headquarters of one of the largest computing services organisations in the world, is seeking to recruit a Senior Salesman for its city district office. The position should lead to sales management within a year. Totally committed to the development of leading edge, on-line systems, the company provides computing services for city institutions (e.g. banks, insurance companies, stock brokers, finance houses etc.) which are among the most advanced available in the world.

The company will also consider existing sales managers, with relevant experience, who are willing to perform an active selling role while planning and developing their own team.

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For further details phone Kevin McCourt or write enclosing full C.V. Interviews will be held in Reading or Central London.

MCL

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Tel: Reading (0734) 595346

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Michael Linford Associates wish to hear from Sales Executives and Sales Managers whose track record to date has demonstrated superior ability.

You may have just completed your Initial 'Sales Apprenticeship', alternatively, you may be a Senior Sales Executive or a Sales Manager/Director.

We are an established consultancy who specialise in the search and selection of sales and marketing executives for the computer industry with target earnings from £16-50,000 P.A. plus.

Perhaps your current appointment is fulfilling your career needs, but nevertheless, you are interested in future opportunities, alternatively, you may be actively seeking a new appointment now.

You may be looking for:

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- * A more sophisticated product
- * A totally professional peer group
- * A more authoritative role

Or more likely, a combination of all these factors, than perhaps the time you spoke to us. Bear in mind, the best position for you may never be advertised.

In the first instance telephone Steven Baker on: 01-370 2012/2013. Or send a brief CV for his attention to the address below. Any approach will be treated in the strictest confidence.

ML

Michael Linford
Associates Ltd.

Executive Search Consultants

150A Gloucester Road, London SW7. Telephone: 01-370 2012, 2013.

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A/Progs Fortran DEC 10 or 20 - North West
Progs IBM System 38 RPG III - Scotland
A/Progs, Prime Cobol and Fortran - North West
Progs and A/Progs IBM Cobol CICS DL/1 - North
Progs Univac 1100 Cobol DMS - North

Contact Peter Lynch or Sue Kelly on 0422 248521

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Contact Mandy Lock on 01-828 5356

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This post arises due to the promotion of the present post holder.

The Authority is responsible, mainly through its constituent Health Districts, for the provision of comprehensive health care throughout Dorset, Hampshire, Wiltshire and the Isle of Wight.

The Authority controls a revenue allocation of over £416 million and a capital investment programme in excess of £46 million per annum, and is both dynamic and forward looking.

This post offers a considerable challenge and career potential to young qualified Accountants (preferably graduates) with a few years' relevant post-qualification experience, preferably but not necessarily in the Public Sector.

Potential applicants wishing to have an informal discussion should contact Mr. R. Layzell (Regional Treasurer) on Winchester 83611 EXT 358.

Application forms, job descriptions and other relevant information may be obtained from the Regional Headquarters Personnel Officer, Highcroft, Romsey Road, Winchester, Hants. SO22 8DH. Telephone Winchester 83611 EXT 471.

Closing date for receipt of applications, 28th March.

LYFRGELL GENEALITHOL CYMRU THE NATIONAL LIBRARY OF WALES AUTOMATION PROJECT TECHNICAL OFFICER

The Library intends to purchase an integrated on-line library system that will replace the present manual procedure of accessioning and cataloguing books and periodicals. It is now seeking to appoint a suitable person to join a small team established to direct automation within the Department of Printed Books.

The project is being conducted according to the procedures of the Central Computer and Telecommunications Agency and the successful candidate must be able to offer a combination of computer and management experience that will add to the existing knowledge of the Library staff. The Library requires a person who can offer some of the following:

- experience of liaison and negotiation between computing equipment and software suppliers;
- experience of on-line terminal based data processing systems;
- experience of large scale databases or information retrieval systems with extensive search facilities;
- experience of the technical evolution of supplier proposals;
- a broad general knowledge of current hardware and software techniques.

Though not essential, a knowledge of Welsh would be desirable. The post is envisaged, in the first instance, as covering the first two years of the project, although an extension of this period may be possible. C15348 but will be unlikely to be above the median point of this scale.

Applications are requested immediately and it is hoped to fill the post as soon as possible after March 31, 1983. Further particulars are available from the Secretary, The National Library of Wales, Aberystwyth, Dyfed, SY23 3BL (Tel. 0975 36116 Ext. 214).

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12781

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This candidate should be capable of contributing to the design and development of the product, thus gaining full product knowledge as part of the unique dual role. The jobholder will be involved in researching market potential prior to the sales launch and will be responsible for planning and establishing a nationwide sales outlet network.

Salary, company pension scheme and benefits are commensurate with company size. Please send your details, qualifications, experience and a personal snapshot to:

The Personnel Manager, Tatum (UK) Ltd, Hospital Street, Bridgwater, Somerset TA6 6BD.

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Required for the micro systems centre at Borehamwood a founder member of the Federation of Micro Systems Centres. A Training Adviser is required to head a team developing advisory services and training in micro computing systems for business, sales and marketing experience are important for this post to encourage the widespread use of micro computers throughout local industry. A suitable applicant is required as soon as possible initially on a one year contract. Salary according to experience and qualifications on the scale £11,850-£13,116 plus £270 fringe allowance.

Application forms and further details are available from the above address or telephone 01-953 8024.

12804

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TRAINING SUPERVISOR
C15348 p.a.

To work at the Information Technology Centre recently established in central Reading to provide training and work experience in micro-electronics and information technology skills to unemployed young people.

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For the post irrespective of race, colour, sex, marital status or disability.

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A major financial concern based in Essex are currently seeking to recruit a Programmer/Analyst with a minimum of two years' experience on IBM 4341 series, or either COBOL or ASSEMBLER background, and preferably some experience in development work, and prospects in the company are unlimited. The benefits include free medical insurance, non-contributory pension scheme. Ring now for more details.

SENIOR PROGRAMMER WEST LONDON
New IBM 4341 site utilizing CICS, DB/2, COBOL require a Senior Programmer with 12+ years' experience to take on full responsibility for the development of a database system. As part of a small team, you should be native, adaptable, self-motivated, and contribute at all stages of the project. CICS training will be provided where necessary.

IBM SENIOR PROGRAMMER HERTS
This major commercial company are seeking to recruit a Senior Programmer with a minimum of three years' experience in an IBM environment. With your knowledge of TSO, SP/1, and IMS this could be the ideal career move for you. You will be expected to work on existing on-line development projects and become an important member of the team. Excellent benefits.

RPG III PROGRAMMER/ANALYST
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PROGRAMMER ESSEX
Expanding DP Department are now looking for a capable Programmer to join their team and make an immediate contribution to the challenge that their systems development group are facing. At least 18 months' IBM COBOL experience is essential. Some experience in the systems of the ME29 would be an advantage. Also a good knowledge of RPG III and the latest software. This is a really good career opportunity for the right person.

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Watch for 'deadly sins' of job-hunting

Ivan Newman passes on some tips to those restless marketers

IN CASE no-one has told you, we are in a recession — even in the high-tech computer business. The evidence of the squeeze on company profits is shown by the number of companies taking prudent measures such as cancelling new plants, freezing wage increases and so on. In this, then, the best time to change jobs?

The answer to that needs careful thought. Why not analyse the reasons for wanting a change in the first place? Remember, 1983 is a time of recession. The world of computer sales and marketing is now very different from that of the heady days when company turnovers and profits were growing rapidly, the market was expanding more quickly than existing companies could cope and new ventures grew on the surplus demand.

In those days job opportunities were legion and followed a typical cyclical profile. Very often early experience and training were gained with the larger companies which could afford the unproductive overhead of graduate trainees.

These young marketing people sooner or later (although sometimes never!) become productive and began to generate revenue. After some two to four years a number of things could happen:

Of the "deadly sins", first

The world of computer sales and marketing is now very different from that of the heady days when company turnovers and profits were growing rapidly, the market was expanding more quickly than existing companies could cope and new ventures grew on the surplus demand.

came Temptation: If successful in the marketplace there was often a belief that the recently-trained were really exceptional and that better remuneration, benefits and management opportunities were available elsewhere. The "£40,000 on-quota (regalistic)" was their staple reward each week.

Then came Disappointment: If not so successful a degree of self-examination occurred which may well have culminated in a re-evaluation of the sales-support role on the basis of "I like computers but I'm obviously not suited to selling them."

Then Resignation: Not the written type but just an inertia against doing anything. Then Reasoned Move: For any number of reasons, but ideally well thought-out responses to whatever personal aims needed satisfying. Included in this category could be a reasoned change within the current employer organisation. Perhaps the only change was a more positive personal attitude to the existing job.

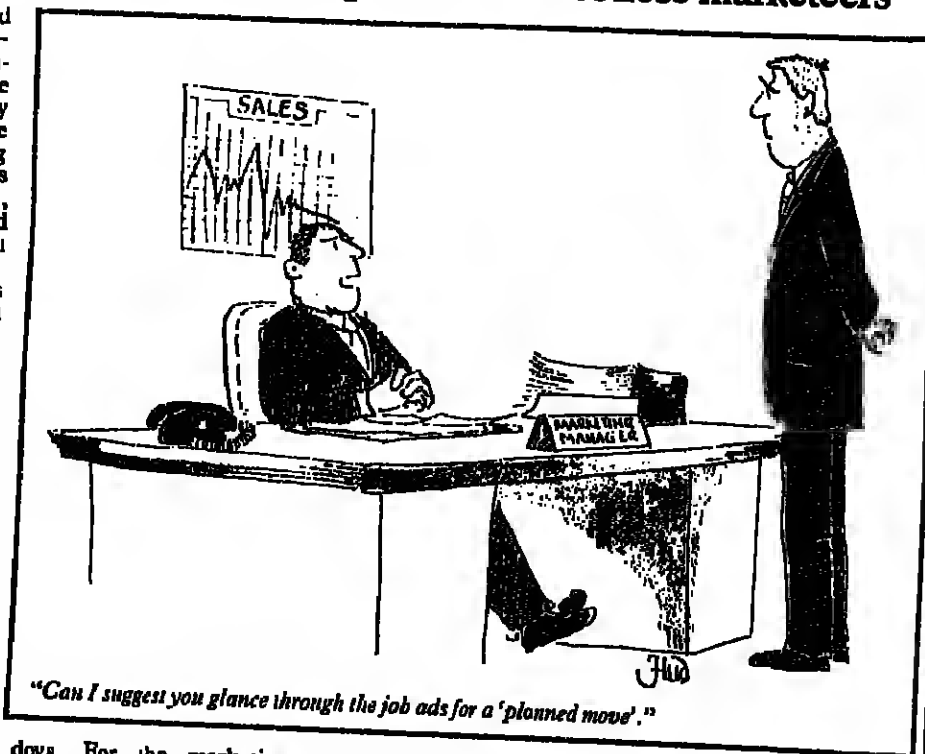
Looking through the "people on the move" columns reveals that a good deal of job changing, or even hopping, took place in those

1983 is different. Times are now tough for marketers. The "deadly sins" look different in the new light. Now, for example, there is slower market growth (obviously there are new market sectors which are showing robust demand), but companies have been designed to run on continuing big market growth.

Old perceptions are not always valid. Whereas, for example, discounts might have been offered as the final clincher on a deal it is now sometimes offered right from the start — for no good reason.

Even the basic marketing psychology is under fire since potentially more sales will be lost in a more static market than an expanding one. That success breeds success is absolutely right, but what happens when success is fewer and further apart?

What do the "deadly sins" look like now? First comes Temptation: Relative success perhaps suffering a little in difficult times. As the fault cannot be "me" then it might be the products I sell, or the company image, or the price. So it is indeed tempting to investigate the "new and



"Can I suggest you glance through the job ads for a 'planned move'."

days. For the marketing people, smaller jobs in large companies led to larger jobs in small companies.

Experience was at a premium. There was a growing market fuelled by a fast growing demand and there seemed to be a collective belief that there was enough business to go round. Healthy margins and/or good volume sales were the norm.

unique product — hardware, software or support. The temptation could also include a way out of any frozen earnings position. Yet what happens in one company today may happen at the company next-door tomorrow.

Then comes Disappointment: Over the past year or so, the Press has carried a number of articles featuring sales and marketing reorganisations. 10 attempts to come to grips with a less expansionary market, management changes branch structures, marketing divisions are amalgamated or split and reporting chains altered. Faced with this degree of change in a difficult marketing environment dissatisfaction is quite understandable. No company can guarantee a completely unchanging environment — business just is not like that and it would be a foolish person to expect it to be so.

Then comes Resignation — summed up by "it's tight, times are tough". There is much to recommend this course because it sounds safe. But in that safe cocoon could lie a sense of fatalism. The catchment goes something like this: "Times are tough, there's more competition out there, more deals will be lost through 'dirty' tactics (eg discount) so I must expect not to do so well." This reasoning, of course only leads one way — downhill.

Then comes the Reasoned Move: Most of the reasons for changing jobs, including the "deadly sins", are perfectly valid; what is needed is the right frame of mind to mould them into a positive campaign of action which will result in the right kind of move. If a sensible change is being contemplated

As with a person's habits, a company's habits can be infuriating. So much so that resentment builds up day by day, small episode by little aggravation, until finally drastic action is initiated in the form of a job hunt.

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A Casual User Car Allowance is payable. Assistance with housing will be given in approved cases. Application form and job description may be obtained from the undersigned and should be returned to him to arrive not later than Monday, 21st March, 1983. Conveying of Members of the Council or any Committee for any appointment directly or indirectly will disqualify the candidate concerned. Applicants should also disclose any relationship to a Member or Senior Officer of the Council.

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Closing date: 21st March, 1983.

(2830)

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PUZZLER

Quality of Management — 43

Get it right
from the start
when taking
on sales staff

NO experienced sales manager will argue against the suggestion that effective recruitment of sales people is one of the most important elements of success. It is a job that has to be done correctly, not only because of the direct revenue implications of failure, but also because of the adverse effect the wrong person can have upon the sales team.

Recruiting the wrong person is more apparent in selling than in any other job because sales people are continually measured by their results.

You can hide an inadequate clerk or a lazy secretary for as long as the inclination stays with you, but the failure of sales people stands out in the sales analysis like a punk rocker in the Stock Exchange.

Choosing the right person is much more than an intuitive process. Even to be right most of the time is a creditable performance.

Having said all that, the chances of ever recruiting a sales team consisting entirely of "the right people," is virtually nil. There will always be sales people with particular strengths and weaknesses that need to be constructively exploited and offset.

The very existence of sales management (as opposed to marketing management) as a job function, must be due to the unlikelihood of ever recruiting a team entirely composed of ideal sales people.

Surely the only reason a sales manager needs the ability to motivate and organise his team, is because his people have insufficient capability to motivate and organise themselves. If a team could be entirely made up of the perfect sales people, there would be little for the sales manager to do.

So it follows that the more he fails to recruit the right people, the more work and problems he creates for himself.

Sales managers and salesmen alike often complain about the lack of effective sales training within their company as if to suggest that the absence of sales success is due to a relative shortage of sales training, but as the biblical adage declares, you can't make a silk purse out of a sow's ear.

Selecting the wrong people cannot be recovered by providing them with remedial sales training. The wrong sales people will always remain the wrong sales people. In this respect recruitment is more important than sales training — you've got to get it right from the very beginning.

The risk of simply getting the team up to full complement, rather than recruiting the right salesmen for each job, must be avoided at all times.

Ideally, a salesman not only has a substantial record of sales success, but also ex-

perience of your product in your chosen industries or applications areas. At Sales and Marketing Recruiters, we call this the "superstar" syndrome. It is the desire to recruit the ideal salesman that for many sales managers only subsides when all the initial applicants have decided to take their talent elsewhere.

Shooting for perfection is a reasonable starting point, but a naive objective. If you can get most of the skills, experience and human characteristics you want, settle for that.

Of course, this begs the question: which skills are most important — product, industry, applications or selling?

Well, there's no easy answer to that; it depends very much on the product.

Some companies sell "solutions to problems" as opposed to "tools" with which the client can do it for himself. The former undoubtedly demands the ability to speak the buyer's language and understand his business if the problem is to be identified and the appropriate solution proposed.

However, as a general rule, it is a much easier and shorter process to give people product knowledge than to teach them to sell.

In my opinion, the product has to be very technical and the market extremely specialised before such knowledge can be given greater than or even equal importance to established selling skills.

The claim that good salesmen are made, rather than born, is a piece of overstated propaganda, which probably emanates from those organisations which have something to gain by providing the necessary training. This does not mean that good salesmen can sell anything; there are definitely "horses for courses." Star performance in selling carbon paper does not guarantee similar success in supercomputers.

Many other factors such as the duration of selling cycle, exposure to strategic selling, multiplicity and level of contact, educational background, intellectual capability, etc., have to be taken into account.

That is why a job specification and a candidate profile is an essential point of initiation for the recruitment process.

Alan Williams

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